

**UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS**

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Productivity and displacement of labor in ticker telegraph work, p. 1269

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UNITED STATES DEPARTMENT OF LABOR

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BUREAU OF LABOR STATISTICS

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This Issue in Brief

More than 76,000 needy old people were being cared for by public pensions at the end of 1931. This was disclosed by a survey just made by the Bureau of Labor Statistics. While 17 States had pension laws on their statute books at the end of 1931, the law had not been put into actual operation in two of these. About two-fifths of the counties in the other 15 States had adopted the system, and these spent more than \$16,000,000 for the support of their needy aged in 1931.

In 4 of the States the system is practically state-wide, while in the remaining 11 States the protection afforded by the law ranges from less than 1 per cent of the State population (in Kentucky) to 80 per cent (in Montana). As would be expected, the spread of the system has been much greater in the States with "mandatory" than in those with "voluntary" systems. Page 1259.

Technological changes in ticker systems for handling market quotations have had an important effect on the employment of telegraphers. There has been a greater indirect displacement of Morse operators than a direct displacement of ticker operators. This is shown in a study made by the Bureau of Labor Statistics. Because of automatic reception by tickers, the number of ticker operators has never been large. But the country-wide extension of ticker service has eliminated large numbers of telegraphers (mainly Morse operators) formerly employed and has made unnecessary the employment of even larger numbers which would have been required to meet the growing demand for market news. Page 1269.

Large numbers of children in the United States are still engaged in taxing, disagreeable, and even dangerous occupations. This is made evident in a report of the subcommittee on child labor of the White House Conference on Child Health and Protection recently issued, which brings together all the available data on child labor in this country. Employment in agricultural and nonagricultural work, hazardous occupations, industrial accidents to minors, and administration of laws affecting the employment of minors are all covered in the report, which is reviewed on page 1278.

The question of unemployment relief received special attention by the State legislatures in session during 1931. Many States had special sessions to cope with this problem. The form of relief has varied in the several States. Some States have provided direct relief, while others have provided for a public construction program and a few have delegated to local governments or political subdivisions the power to provide relief. Page 1287.

The mortality experience of the International Typographical Union for 1931 showed a slight increase over the previous year in the number of deaths from pulmonary tuberculosis and cancer and a marked increase in mortality from diabetes. The number of deaths from nephritis, which is often held to mask deaths from lead poisoning, has decreased during recent years, and during the past three years

no deaths have occurred from lead poisoning. This notable improvement in a former serious hazard of the printing industry is the result of better sanitation and ventilation of printing plants throughout the country. Page 1310.

Liability for "second injuries" has become a live question in workmen's compensation administration. The question involved is whether the employer shall be held liable for the total disability of the combined injuries or only for the injury suffered while in his employment. Some States have provided "second-injury funds" to pay the compensation for the disability due to the prior accident. The provisions for second injuries under the workmen's compensation laws are discussed and the text of the legislation quoted, beginning on page 1329.

Earnings of employees of gasoline filling stations averaged 39.3 cents per hour in 1931, according to a study by the Bureau of Labor Statistics, the first made by the bureau for these workers. The range in hourly earnings in the different occupations was from 19.3 cents for porters to 63.1 cents for managers. Full-time weekly earnings averaged \$23.58, the range being from \$12.56 for porters to \$36.16 for managers. Average full-time working hours per week ranged from 48.3 for relief men to 67.9 for tire men, while the hours actually worked ranged from 46.6 for relief men to 67.8 for tire men. Page 1388.

Hourly earnings in metalliferous mining in 1931 averaged the same as in 1924—55.9 cents—although full-time earnings per week showed a reduction from \$29.63 in 1924 to \$28.84 in 1931. Nominal full-time hours per week averaged 51.6 in 1931 as compared with 53 in 1924. These and other data from the 1924 and 1931 surveys by the Bureau of Labor Statistics of wages and hours of labor in this industry are given on page 1394.

Average hourly earnings in the slaughtering and meat-packing industry in 1931 were 47 cents for males and 32.1 cents for females, as compared with 52.5 cents for males and 36.9 cents for females in 1929, the date of the last previous study of wages and hours of labor in this industry by the Bureau of Labor Statistics. Full-time weekly earnings of males in 1931 averaged \$23.12 and of females \$15.70, as compared with \$25.88 and \$18.04, respectively, in 1929. Average full-time hours per week of males in 1931 were 49.2 as compared with 49.3 in 1929; for females they averaged the same in 1929 and 1931—48.9. Page 1401.

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Operation of Public Old-Age Pension Systems in the United States in 1931

AT THE end of 1931 old-age pension legislation had been enacted in 17 States.¹ The year 1931 marked the greatest progress in pension legislation thus far, five States (Delaware, Idaho, New Hampshire, New Jersey, and West Virginia) having legislated on the subject during the year. However, although 17 States had old-age pension laws, in not all of them had the system actually been put into effect. Pensions were being paid in some or all of the counties of 15 States. In New Jersey the law did not become operative until January 1, 1932, and pensions will not be paid until July 1, 1932. The West Virginia act went into effect June 11, 1931; but as it provides that the matter of adoption by the individual counties must be voted upon at an election, no action toward acceptance of the system will be taken in that State until November, 1932.

In the States of California, Delaware, Massachusetts, and New York, the operation of the old-age pension system is practically state-wide.

The Colorado law became mandatory January 1, 1932; but while one or two counties anticipated this and put the system into effect in the latter part of 1931, reports from many counties in the State indicate that no action will be taken to provide funds until the fall of 1932. Both the adoption of the plan and payment of pensions under it in this State have also been delayed pending the outcome of a suit in the Denver district court attacking the constitutionality of the act. The court upheld the act, but reports indicate that the case will be carried to the Colorado Supreme Court.

In Idaho and New Hampshire, two States in which the act was passed in 1931, the old-age pension plan has gotten off to a very good start, although the reports indicate that actual payment of pensions in most of the counties of Idaho did not begin until January, 1932. Payments began in New Hampshire about October 1, 1931.

Montana and Wisconsin each show a gain of one county since 1930.

The Kentucky act remains, as before, practically inoperative, due in large part, it would seem, to the poverty of the counties. Baltimore city was the only part of Maryland in which the pension plan was effective in 1931; in the remainder of the State the counties continue to care for needy aged under the poor-relief system.

¹ California, Colorado, Delaware, Idaho, Kentucky, Maryland, Massachusetts, Minnesota, Montana, Nevada, New Hampshire, New Jersey, New York, Utah, West Virginia, Wisconsin, and Wyoming.

Minnesota is like West Virginia in that its law provides that before the adoption of the plan the matter must be placed before the voters at a general election. In 1930 the old-age pension measure passed by a majority vote in four counties, and in three of these pensions are being paid. As no general election took place in the State in 1931, no further progress was made and none can be made until November, 1932, when the matter may be voted upon and possibly adopted by other counties.

In Nevada in 1931, as in 1930, only two counties were paying pensions.

Wyoming, whose legislature in 1931 amended its act so as to permit a special tax levy for the raising of funds for pensions, shows a gain of 8 counties in 1931 over 1930.

The above data and those shown in the following pages were obtained by the Bureau of Labor Statistics in its third survey, just completed, of the operations under the State old-age pension laws. This survey covered the year 1931, the other two having covered 1930 and 1928, respectively. Where possible the data were obtained from State officials, covering the whole State; this was done in the case of California, Delaware, Kentucky, Maryland, Massachusetts, Montana, New York, and Wisconsin. In the other States the information was obtained directly from the counties.

In all but two States (Delaware and Massachusetts) the primary pension agency is the county. In Massachusetts the primary agency is the town or city, and in Delaware the whole system is conducted by a State commission; for statistical purposes, however, the data for all States are shown on a county basis.

Of 681 counties in the 15 States in which the pension system was in operation in some measure at the end of 1931, reports were received for 645, or 95 per cent. The data given can therefore be accepted as representative of the pension situation as of the end of 1931. Of these 645 counties, 268, or about 42 per cent, had adopted the system. At the end of 1931 they were caring for 76,349 needy old people and had spent during the 12 months preceding \$16,173,207.

Of the 15 States represented, 75 per cent of the total number of pensioners and almost 90 per cent of the total expenditure were accounted for in the two States of California and New York.

From 1930 to 1931 the number of aged receiving assistance under the old-age security laws increased from 10,307 to 76,349, while the annual amount spent for their support increased from \$1,714,388 to \$16,173,207. How much of this was a normal increase and how much due to unusual circumstances created by the depression, it is difficult to say. The administrative authorities in New York and Massachusetts estimate, however, that the number of pensioners has been increased by 30 and 35 per cent, respectively, by this cause alone. It is pointed out that a new type of dependent has been created, a "class of people who have never asked us for any kind of assistance before."² Many old people formerly able to earn their livelihood are now unemployed. A certain proportion of these, however, are merely temporary pensioners; when better times come they will be returned to the care of relatives who at present, because of

² American Association for Old Age Security. Old-age security in the United States, 1932: A record of the fifth national conference on old-age security, New York City, Mar. 30, 1932, pp. 39, 56.

loss of employment or greatly decreased earnings, are not able to support them.

Summary data as to the 1931 operations in the various States are given in Table 1.

TABLE 1.—SUMMARY OF OPERATIONS UNDER STATE OLD-AGE PENSION LAWS, 1931

| State | Year of passage of law | Counties in State | | Counties having pension system | | |
|--------------------|------------------------|-------------------|---------------------|--------------------------------|----------------------|-------------------------------|
| | | Total | Number reported for | Number | Number of pensioners | Amount paid in pensions, 1931 |
| California..... | 1929 | 58 | 58 | 57 | ¹ 9,887 | ² \$2,460,000 |
| Colorado..... | 1927 | 63 | 54 | 7 | 50 | 2,190 |
| Delaware..... | 1931 | 3 | 3 | 3 | 1,497 | ³ 66,568 |
| Idaho..... | 1931 | 44 | 38 | ⁴ 31 | ⁴ 698 | 4,224 |
| Kentucky..... | 1926 | 120 | 120 | 1 | 10 | 1,000 |
| Maryland..... | 1927 | 24 | 24 | 1 | 150 | 50,000 |
| Massachusetts..... | 1930 | ⁵ 14 | ⁵ 14 | ⁵ 14 | 11,076 | ³ 904,939 |
| Minnesota..... | 1929 | 87 | 87 | 4 | ⁶ 1,227 | ⁶ 94,068 |
| Montana..... | 1923 | 56 | 56 | 45 | 1,130 | 178,934 |
| Nevada..... | 1925 | 17 | 13 | 2 | 34 | 7,360 |
| New Hampshire..... | 1931 | 10 | 6 | 5 | 246 | ⁷ 3,614 |
| New York..... | 1930 | 62 | 62 | 62 | 47,585 | 12,007,352 |
| Utah..... | 1929 | 29 | 22 | 12 | 873 | 92,305 |
| Wisconsin..... | 1925 | 71 | 71 | 9 | 1,597 | 283,848 |
| Wyoming..... | 1929 | 23 | 17 | 15 | 289 | 16,805 |
| Total..... | | 681 | 645 | 268 | 76,349 | 16,173,207 |

¹ As of Jan. 31, 1932.

² Estimate, based on reports for June, 1931, and January, 1932.

³ 6 months.

⁴ But only 2 of these counties, with 143 pensioners, actually paid any pensions during 1931.

⁵ System is not, however, a county system, but a city-and-town system; of 355 cities and towns in the State all were reported for, but 22 (of which only 1 was large enough to have its population figures shown separately in the population census) had not put the pension system into effect.

⁶ 3 counties.

⁷ 3 months.

Development of Pension System Under "Voluntary" and "Mandatory" Laws

IN TABLE 2 the States are classified according to the type of law in effect. For States in which the law was not clearly mandatory or clearly voluntary the classification was made by the bureau on the authority of the officials of the State concerned.

The early old-age pension laws in the United States were nearly all of the type which left the adoption of the system to the option of the counties. A definite trend toward the mandatory form is discernible of late years, however. Of the 12 laws on the books at the end of 1930, 5 were mandatory. Of the five laws passed in 1931, four were mandatory, while the 1931 legislatures of Colorado and Wisconsin changed their laws from the optional to the mandatory form.

Another definite trend is toward State aid in increasing proportions. At the end of 1928, of the six States with pension legislation, only Wisconsin provided for State aid (to the extent of one-third of the cost). At the end of 1930, of the 12 States with such laws, 4 provided for State aid; one-half of the total cost was at that time the maximum proportion met from State funds. In 1931, of the 5 States passing new pension laws, 2 provided for State participation in cost, 1 to the extent of three-fourths and the other the entire cost. Of the 17 States now having such laws, 6 have the State-aid plan, 2 bearing one-third, 2 one-half, 1 three-fourths, and 1 all of the cost.

Among the "voluntary" or "optional" States it is seen that the greatest proportion of adopting counties occurs in Montana and Wisconsin, in the order named. That the larger and more populous counties are the ones which have seen the value of the pension system is also shown. Thus, although in Minnesota only 4 of the 87 counties have adopted the system, these contain over two-fifths of the entire population of the State. Baltimore, the only part of Maryland which is paying old-age pensions, contains nearly half of the State population. In Wisconsin, the nine counties (one-eighth of the whole number) which have accepted the pension system contain some three-eighths of the State population. Four-fifths of Montana's population have the protection of the old-age pension law.

At the other end of the scale is Kentucky, where the law is practically a dead letter, only 1 of the 120 counties (with 0.3 per cent of the State population) having paid pensions in 1931. The report for that State, by the State bureau of agriculture, labor and statistics (which made a survey of the pension system there, on behalf of the United States Bureau of Labor Statistics), indicates that many counties favor the system and even in those counties in which opinion is unfavorable the opposition rests mainly on the poverty of the county and the resultant lack of funds; there is also some dissatisfaction with certain features of the law as now written. In lieu of the pensions, a certain amount of poor relief is being carried on in the State.

As would be expected, a much wider use of the pension system is shown in the "mandatory" States, particularly those in which the State bears some part of the cost. In California, Delaware, Massachusetts, and New York the system is practically state-wide. California had only one county (whose population was 241) in which no pensions were being paid at the end of 1931. In Massachusetts, where the system is a town-and-city, not county, plan, in only 22 out of 355 cities and towns in the State were no pensions being paid; that these form a very small part of the State is shown by the fact that only one of the nonpaying communities was large enough to warrant separate presentation in the census statistics of population. It is significant that in California and New York the State pays half of the cost of the pensions, and in Delaware the whole cost. In Massachusetts the law provides in general for State aid to the extent of one-third of the cost, but under a ruling of the State attorney general on a 1931 amendment to the act the State must bear the whole cost during the years 1931 and 1932. In the other five mandatory States the entire cost must be met by the counties. It is seen that the coverage (i. e., the proportion of the population in the adopting counties) in these States ranges from 10 per cent in Colorado to nearly 80 per cent in Wyoming. The mandatory feature of the Colorado law became operative only on January 1, 1932, and is now being questioned in the courts, this tending to delay the adoption of the system. In New Hampshire the law became effective only on September 1, 1931, but already the accepting counties afford protection to two-thirds of the State population. Idaho, another new pension State, has also shown a remarkable degree of favor toward the system.

TABLE 2.—EXTENT AND COVERAGE OF PENSION SYSTEM IN SPECIFIED STATES, BY TYPE OF LAW¹

| State, and type of law | Popula- tion of State, 1930 | Number of coun- ties in State | Counties having pension system ² | | |
|------------------------|-----------------------------------|--|---|------------|---|
| | | | Number | Population | Per cent of State popula- tion |
| <i>Voluntary</i> | | | | | |
| Kentucky | 2,614,589 | 120 | 1 | 8,584 | 0.3 |
| Maryland | 1,631,526 | 24 | 1 | 804,874 | 49.3 |
| Minnesota | 2,563,953 | 87 | 4 | 1,033,855 | 40.3 |
| Montana | 537,606 | 56 | 45 | 431,342 | 80.2 |
| Nevada | 91,058 | 17 | 2 | 9,199 | 10.1 |
| Wisconsin | 2,939,006 | 71 | 9 | 1,097,277 | 37.3 |
| <i>Mandatory</i> | | | | | |
| California | 5,677,251 | 58 | 57 | 5,677,010 | ³ 100.0 |
| Colorado | 1,035,791 | 63 | 7 | 104,374 | 10.1 |
| Delaware | 238,380 | 3 | 3 | 238,380 | 100.0 |
| Idaho | 445,032 | 44 | 31 | 278,421 | 62.6 |
| Massachusetts | 4,249,614 | 14 | 14 | 4,234,530 | 99.6 |
| New Hampshire | 465,293 | 10 | 5 | 311,398 | 66.9 |
| New York | 12,588,066 | 62 | 62 | 12,588,066 | 100.0 |
| Utah | 507,847 | 29 | 12 | 315,365 | 62.1 |
| Wyoming | 225,565 | 23 | 15 | 176,019 | 78.0 |

¹ New Jersey and West Virginia are not shown in this table because in neither are pensions being paid; the New Jersey law is mandatory and that of West Virginia voluntary.

² Includes also those which, although they have adopted the system, have not yet put it into effect.

³ Actual percentage is 99.99+.

Cost of Pensions

TABLE 3 shows the proportion of pensioners in the population and the cost of pensions in those counties which were paying pensions in 1931.

It is seen that the highest percentage of pensioners is in Delaware, surpassing in this respect even such industrial States as Massachusetts and New York.

The average annual amount disbursed per pensioner is, of course, affected by a number of factors, such as the limitations set by the various State laws, the pensioners' circumstances, the number of deaths during the year, the funds available, etc. The largest average amounts spent were those of California, Maryland, and New York. In Maryland, however, the figure shown in the table is based upon the sum of \$50,000 reported as having been appropriated and spent; the validity of the average in this case is open to question.

The average annual cost of the pensions per inhabitant, in the counties having the pension plan, ranged from 7 cents in New Hampshire to 95 cents in New York.

TABLE 3.—COST OF OLD-AGE PENSIONS IN SPECIFIED STATES IN 1931

| State | Per cent pensioners form of total population in counties with system ¹ | Annual amount disbursed per pensioner ² | Average annual cost per capita of population, in counties with system |
|--------------------|---|--|---|
| California..... | 0.17 | \$248.81 | \$0.43 |
| Colorado..... | .05 | | |
| Delaware..... | .63 | 88.94 | .56 |
| Idaho..... | .25 | | |
| Kentucky..... | .12 | 96.00 | .12 |
| Maryland..... | .02 | 333.33 | .06 |
| Massachusetts..... | .26 | 163.41 | .43 |
| Minnesota..... | .12 | 76.67 | .09 |
| Montana..... | .26 | 158.35 | .41 |
| Nevada..... | .37 | 216.47 | .80 |
| New Hampshire..... | .08 | 110.35 | .07 |
| New York..... | .38 | 255.33 | .95 |
| Utah..... | .28 | 109.76 | .30 |
| Wisconsin..... | .15 | 177.74 | .26 |
| Wyoming..... | .19 | 69.16 | .16 |
| Total..... | .28 | 227.42 | .64 |

¹ Based on counties reporting number of pensioners.² In counties reporting both number of pensioners and amount disbursed.

In general it may be said that most of the objections to the pension system are based either on the cost to the taxpayer or on the charge that the pension discourages thrift and decreases the sense of family responsibility.

Some of the county reports call attention to the fact that the county has a large sum of money invested in the almshouse and does not feel it can incur additional expense, since as long as there are any inmates at all at the poor farm the plant there must be maintained. Many of the reports from counties in States having purely county systems indicate that lack of resources is the chief factor in keeping the county from adopting the plan. Many favor a State system which would distribute the cost of plan over the whole State, pointing out that those counties which have the greatest proportion of aged poor and which therefore need the pension system most are precisely the counties whose resources are least. Thus of 120 counties in the State of Kentucky, only 1 county is paying pensions; 66 have almshouses, while others are supporting certain needy cases in private homes. Others apparently have no form of relief. One of these reports that it is "miserably in debt" and has "no poor farm or institution of any sort and can not support one."

Average Pensions Paid

TABLE 4 shows, where available, the lowest, highest, and average monthly pensions in the various pension States in 1928 (the year of the bureau's first study), in 1930, and in 1931. The "average pension" here shown is the average of amounts paid in individual cases, as distinguished from the average amount disbursed (obtained by dividing the amount spent in pensions by the number of pensioners). The difference may be illustrated by the following case: In California in 1930 the amount of monthly pension reported in individual counties was as low as \$10 in some cases and as high as \$27.76 in others; by weighting the amount of individual pensions by the number receiving them an average pension for all was obtained of \$22.69. This takes no consideration of the period during the year for which the pension may

have been paid, a pension of \$25 paid for one month having as much weight as one of the same amount paid for 12 months. On the other hand, on the basis of the total number of pensioners and the total amount paid out in pensions, the average amount disbursed per pensioner in this State for 1930 was \$15.63. In the latter case the amount is affected, of course, by the period for which the pension was paid in each case.

It is seen that in most of the States there is a considerable margin between the average pension actually granted and the maximum possible under the law.

TABLE 4.—LOWEST, HIGHEST, AND AVERAGE MONTHLY PENSIONS PAID IN SPECIFIED STATES, 1928, 1930, AND 1931

| State | 1928 | | | 1930 | | | 1931 | | | Maximum payable under State law |
|--------------------|---------|----------|----------|---------|----------|----------|------------------|------------------|----------------------|---------------------------------|
| | Low-est | High-est | Aver-age | Low-est | High-est | Aver-age | Low-est | High-est | Aver-age | |
| California..... | | | | \$10.00 | \$27.76 | \$22.69 | (¹) | (¹) | ² \$23.16 | \$30.00 |
| Colorado..... | \$10.00 | \$10.00 | \$10.00 | | | | \$15.00 | \$26.00 | 19.35 | 30.00 |
| Idaho..... | | | | | | | 10.53 | 15.00 | 10.62 | 25.00 |
| Kentucky..... | 20.00 | 20.00 | 20.00 | 5.00 | 12.00 | 5.39 | 8.00 | 8.00 | 8.00 | 20.83 |
| Maryland..... | | | | 12.00 | 12.00 | 12.00 | (¹) | (¹) | 30.00 | 30.00 |
| Minnesota..... | | | | | | | 16.75 | 17.00 | 16.89 | 30.00 |
| Montana..... | 9.00 | 25.00 | 16.46 | 7.00 | 25.00 | 15.46 | (¹) | (¹) | (¹) | 25.00 |
| Nevada..... | 15.00 | 15.00 | 15.00 | 25.00 | 25.00 | 25.00 | 16.65 | 25.00 | 17.63 | 30.00 |
| New Hampshire..... | | | | | | | 19.63 | 22.50 | 20.83 | 32.50 |
| New York..... | | | | | | | (¹) | (¹) | 26.80 | (³) |
| Utah..... | | | | 4.00 | 15.00 | 9.68 | 3.00 | 11.35 | 8.62 | 25.00 |
| Wisconsin..... | 17.40 | 21.81 | 18.25 | 5.00 | 30.00 | 19.71 | | | 19.67 | 30.00 |
| Wyoming..... | | | | 13.50 | 15.50 | 14.31 | 10.00 | 18.00 | 12.80 | 30.00 |
| Total..... | 9.00 | 25.00 | 17.10 | 4.00 | 30.00 | 20.04 | 3.00 | 26.00 | 25.45 | ----- |

¹ No data.

² Estimated.

³ No limit.

As the table shows, the smallest average monthly pensions in 1931 were those of Kentucky and Utah. Several reports from Utah express the opinion that the amounts awarded in pensions are too small, but state that they are all that the county, by itself, can afford; one of these takes the position that the State should pay a like amount.

Delaware, which is not shown in the table because no pensions were paid in 1930, was, at the end of 1931, paying an average pension of \$9.54 per month. As regards this point, it is pointed out that the amounts are limited by the appropriations available; also, that many of the pensioners live on farms in the southern part of the State, where living costs are very low.

Progress of Old-Age Pension Movement

TABLE 5 shows in summary form the spread of the pension system since 1928. In that time the number of States with old-age pension laws has tripled.

Whereas in 1928 financial assistance in old age was secured to only about one-twelfth of the population in those States having pension laws, by the end of 1930 over half, and in 1931 more than three-fourths, were so protected.

TABLE 5.—PROGRESS IN OLD-AGE PENSION MOVEMENT, 1928 TO 1931

| Item | 1928 | 1930 | 1931 |
|---|-------------|---------------|----------------|
| Number of States having law at end of year..... | 6 | 12 | 17 |
| Number in which benefits were being paid..... | 5 | 9 | 15 |
| Counties in States with pension law: | | | |
| Total..... | 327 | 461 | 681 |
| Number paying benefits..... | 52 | 137 | 267 |
| Population of States with law in operation: | | | |
| Whole State..... | 7, 218, 050 | 15, 260, 239 | 35, 810, 577 |
| Counties with system— | | | |
| Number of inhabitants..... | 629, 986 | 8, 482, 092 | 27, 308, 694 |
| Per cent of State population..... | 8. 7 | 55. 6 | 76. 3 |
| Number of pensioners..... | 1, 003 | 10, 307 | 76, 349 |
| Amount paid in pensions..... | \$208, 624 | \$1, 714, 388 | \$16, 173, 207 |

Table 6 shows the situation in those States in which the pension system was in operation in both 1930 and 1931. Some gains and some losses are shown, the greatest gains in number of adopting counties being in Colorado and Wyoming. The number of pensioners rose from 10,000 to 14,000, but the outlay for the purpose nearly doubled.

TABLE 6.—NUMBER OF ADOPTING COUNTIES, NUMBER OF PENSIONERS, AND AMOUNT SPENT IN PENSIONS IN IDENTICAL STATES, 1930 AND 1931

| State | Number of counties with system | | Number of pensioners | | Amount spent in pensions | | Average pension | |
|-----------------|--------------------------------|------|----------------------|---------|--------------------------|----------------------------|-----------------|-----------------------|
| | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 |
| California..... | 57 | 57 | 7, 205 | 9, 887 | \$1, 296, 455 | ¹ \$2, 460, 000 | \$22. 69 | ¹ \$23. 16 |
| Colorado..... | 1 | 7 | | 50 | | 2, 190 | | 19. 35 |
| Kentucky..... | 2 | 1 | 18 | 10 | 1, 164 | 1, 000 | 5. 39 | 8. 00 |
| Maryland..... | 2 | 1 | 12 | 150 | 1, 800 | 50, 000 | 12. 00 | 30. 00 |
| Montana..... | 44 | 45 | 889 | 1, 130 | 149, 100 | 178, 934 | 15. 46 | (²) |
| Nevada..... | 2 | 2 | 5 | 34 | 900 | 7, 360 | 25. 00 | 17. 63 |
| Utah..... | 13 | 12 | 1, 107 | 873 | 95, 780 | 92, 305 | 9. 88 | 8. 62 |
| Wisconsin..... | 8 | 9 | 989 | 1, 597 | 156, 510 | 283, 848 | 19. 71 | 19. 67 |
| Wyoming..... | 7 | 15 | 82 | 289 | 12, 679 | 16, 805 | 14. 31 | 12. 80 |
| Total..... | 136 | 149 | 10, 307 | 14, 020 | 1, 714, 388 | 3, 092, 442 | 20. 00 | 20. 99 |

¹ Estimated.² No data.

The development of the pension system in the various States since the passage of the laws is shown in Table 7.

The results of the 1931 amendment to the Colorado law, making the adoption of the system mandatory upon the counties, is shown by the figures for that State, although, as already indicated, the progress was not so great as had been expected, due to the feeling of uncertainty as to the constitutionality of the law.

TABLE 7.—DEVELOPMENT OF PENSION SYSTEM IN SPECIFIED STATES SINCE PAS-
SAGE OF LAW

| State and year of act | Year | Number of counties | | Number of pensioners | Amount spent | Average annual amount spent per pensioner | Cover- age of sys- tem ¹ |
|---------------------------|------|--------------------|------------|----------------------|--------------------------|---|-------------------------------------|
| | | Total | Adopt- ing | | | | |
| California (1929)----- | 1930 | 58 | 57 | 7, 205 | \$1, 296, 455 | \$187. 56 | 100. 0 |
| | 1931 | 58 | 57 | 9, 887 | ² 2, 460, 000 | ² 248. 81 | 100. 0 |
| Colorado (1927)----- | 1928 | 63 | 1 | 1 | 120 | 120. 00 | . 9 |
| | 1930 | 63 | 1 | | | | 3. 5 |
| | 1931 | 63 | 7 | 50 | 2, 190 | | 10. 1 |
| Delaware (1931)----- | 1931 | 3 | 3 | 1, 497 | 66, 568 | 88. 94 | 100. 0 |
| Idaho (1931)----- | 1931 | 44 | 31 | 698 | 4, 224 | | 62. 6 |
| Kentucky (1926)----- | 1928 | 120 | 3 | 30 | 8, 064 | 240. 00 | 1. 9 |
| | 1930 | 120 | 2 | 18 | 1, 164 | 64. 68 | 1. 0 |
| | 1931 | 120 | 1 | 10 | 1, 000 | 96. 00 | . 3 |
| Maryland (1927)----- | 1928 | 24 | | | | | |
| | 1930 | 24 | 2 | 12 | 1, 800 | 144. 00 | 50. 5 |
| | 1931 | 24 | 1 | 150 | 50, 000 | 333. 33 | 49. 3 |
| Massachusetts (1930)----- | 1931 | 14 | 14 | 11, 076 | ³ 904, 939 | 163. 41 | 99. 6 |
| Minnesota (1929)----- | 1931 | 87 | 4 | 1, 227 | 94, 068 | 76. 67 | 40. 3 |
| Montana (1923)----- | 1923 | 56 | 29 | 349 | 22, 870 | 65. 53 | 54. 9 |
| | 1924 | 56 | 37 | 521 | 78, 158 | 150. 02 | 63. 5 |
| | 1925 | 56 | 39 | 583 | 100, 369 | 172. 14 | 62. 7 |
| | 1926 | 56 | 39 | 584 | 104, 863 | 179. 56 | 64. 8 |
| | 1927 | 56 | 42 | 693 | 115, 400 | 166. 52 | 78. 1 |
| | 1928 | 56 | 42 | 884 | 146, 510 | 165. 73 | 78. 4 |
| | 1929 | 56 | 44 | 875 | 146, 746 | 167. 71 | 79. 7 |
| | 1930 | 56 | 44 | 889 | 149, 100 | 169. 08 | 76. 6 |
| | 1931 | 56 | 45 | 1, 130 | 178, 934 | 158. 35 | 80. 2 |
| Nevada (1925)----- | 1928 | 17 | 2 | 11 | 1, 680 | 180. 00 | 17. 3 |
| | 1930 | 17 | 2 | 5 | 900 | 300. 00 | 5. 1 |
| | 1931 | 17 | 2 | 34 | 7, 360 | 216. 47 | 10. 1 |
| New Hampshire (1931)----- | 1931 | 10 | 5 | 246 | ⁴ 3, 614 | 110. 35 | 66. 9 |
| New York (1930)----- | 1931 | 62 | 62 | 47, 585 | 12, 007, 352 | 255. 33 | 100. 0 |
| Utah (1929)----- | 1930 | 29 | 13 | 1, 107 | 95, 780 | 84. 44 | 73. 6 |
| | 1931 | 29 | 12 | 873 | 92, 305 | 109. 76 | 62. 1 |
| Wisconsin (1925)----- | 1925 | 71 | 1 | 8 | 180 | 22. 50 | 1. 3 |
| | 1926 | 71 | 5 | 352 | 67, 926 | 192. 97 | 8. 0 |
| | 1927 | 71 | 4 | 295 | 49, 638 | 168. 26 | 5. 6 |
| | 1928 | 71 | 4 | 295 | 66, 185 | 230. 40 | 5. 6 |
| | 1930 | 71 | 8 | 989 | 156, 510 | 158. 28 | 35. 7 |
| | 1931 | 71 | 9 | 1, 597 | 283, 848 | 177. 74 | 37. 3 |
| Wyoming (1929)----- | 1930 | 23 | 7 | 82 | 12, 679 | 158. 52 | 35. 0 |
| | 1931 | 23 | 15 | 289 | 16, 805 | 69. 16 | 78. 0 |

¹ I. e., proportion of State population living in counties which have adopted system.² Estimated.³ 6 months.⁴ 3 months.

Table 8 shows in summary form the provisions of the old-age pension laws of the 17 States which have legislated in this field.

TABLE 8.—PROVISIONS OF OLD-AGE PENSION LAWS

| State | Old-age pension act (original act) | | Type of law | Maximum pension | Eligibility requirements | | | | | Funds furnished by— |
|--------------------|---------------------------------------|---------------------|------------------|--------------------|--------------------------|---------------------|-------------|------------|---|--|
| | Year of pas- sage | Date effec- tive | | | Age | Required period of— | | | Maximum property limit | |
| | | | | | | Citizen- ship | Residence | | | |
| | | | | | | | State | County | | |
| California..... | 1929 | Jan. 1, 1930 | Mandatory | \$1 a day..... | 70 | Years 15 | Years 15 | Years 1 | Assets, \$3,000..... | County or city, half; State, half. |
| Colorado..... | 1927 | Mar. 19, 1927 | do. ¹ | do. | 65 | 15 | 15 | 15 | do. | County. |
| Delaware..... | 1931 | July 1, 1931 | do. | \$25 a month..... | 65 | 15 | 5 | | | State. |
| Idaho..... | 1931 | Feb. 12, 1931 | do. | do. | 65 | 15 | 10 | 3 | Income, \$300 a year..... | County. |
| Kentucky..... | 1926 | Mar. 25, 1926 | Voluntary | \$250 a year..... | 70 | 15 | 10 | 10 | Income, \$400 a year; assets, \$2,500. | Do. |
| Maryland..... | 1927 | Apr. 26, 1927 | do. | \$1 a day..... | 65 | 15 | 10 | 10 | | County (or city of Baltimore). |
| Massachusetts..... | 1930 | July 1, 1931 | Mandatory | No limit..... | 70 | (²) | 20 | | | City or county, two-thirds; State, one-third. ⁴ |
| Minnesota..... | 1929 | Mar. 1, 1929 | Voluntary | \$1 a day..... | 70 | 15 | 15 | 15 | Assets, \$3,000..... | Payments by county; reimbursed by cities, towns, etc. |
| Montana..... | 1923 | Mar. 5, 1923 | do. | \$25 a month..... | 70 | 15 | 15 | | Income, \$300 a year..... | County. |
| Nevada..... | 1925 | Mar. 18, 1925 | do. | \$1 a day..... | 65 | 15 | 10 | | Assets, \$3,000..... | Do. |
| New Hampshire..... | 1931 | Sept. 1, 1931 | Mandatory | \$7.50 a week..... | 70 | 15 | 15 | 15 | Assets, \$2,000..... | Payments by county; reimbursed by cities and towns. |
| New Jersey..... | 1931 | Jan. 2, 1932 | do. | \$1 a day..... | 70 | (³) | 15 | 1 | Assets, \$3,000..... | County, one-fourth; State, three- fourths. |
| New York..... | 1930 | Apr. 10, 1930 | do. | No limit..... | 70 | (³) | 10 | 1 | Unable to support self..... | City or county, half; State, half. |
| Utah..... | 1929 | May 14, 1929 | do. | \$25 a month..... | 65 | 15 | 15 | 5 | Income during past year, \$300. | County. |
| West Virginia..... | 1931 | June 11, 1931 | Voluntary | \$1 a day..... | 65 | 15 | 10 | 10 | Any property or income..... | Do. |
| Wisconsin..... | 1925 | May 12, 1925 | do. ⁵ | do. | 70 | 15 | 15 | 15 | Assets, \$3,000..... | County, two-thirds (reimbursed by cities, towns, etc.); State, one-third. |
| Wyoming..... | 1929 | June 1, 1930 | Mandatory | \$30 a month..... | 65 | 15 | 15 | 5 | Income, \$360..... | County. |

¹ Became mandatory Jan. 1, 1932.² Required period of residence in United States.³ Citizenship required but no period specified.⁴ Provision of original law, but State bears whole cost during 1931 and 1932, by ruling of State attorney general on 1931 amendment.⁵ Becomes mandatory July 1, 1933.

Productivity and Displacement of Labor in Ticker Telegraph Work

THE new high-speed ticker for handling stock-market quotations is a most remarkable labor-saving mechanism. On September 2, 1930, for example, it automatically printed the New York Stock Exchange quotations on 8,623 stock tickers in 43 States and Territories and in Canada, with circuits in 377 cities. The 17 operators in charge also handled the transmission of bond quotations, which were automatically received on 928 bond tickers. The average number of market quotation tickers in use increased from 3,706 in 1921, to 13,736 in 1929 (falling to 11,178 in 1931). The number of exchanges equipped with ticker service in 1931 was more than 30. A single company engaged in handling business news maintains news tickers in more than 100 cities.

Increasing efficiency of ticker transmission has resulted in a direct loss of employment opportunities for operators of ticker systems. But the principal effect on employment is in the encroachment of automatic ticker systems in fields of telegraphic communication formerly affording numerous opportunities to Morse telegraphers. The ticker services are thus contributing to the decline and near extinction of the Morse telegrapher except in a few relatively insignificant fields where either the inertia of tradition or the value of extreme specialization affords protection.

Evolution of High-Speed Ticker

THE forerunner of the stock ticker was a gold indicator devised by S. S. Laws, president of the Gold Exchange. The fluctuations in the value of money during the period of the Civil War led to the establishment of the Gold Exchange and to the use of a disk indicator on display in the window of the exchange. Hundreds of members of the exchange, merchants, and others sent their messengers to the exchange to note the readings on the indicator. This prompted the idea of installing electrically controlled indicators in the offices of members. The idea of printing the characters on a ribbon of paper was contributed by Edward A. Callahan in 1866. By Black Friday, September 24, 1869, when the attempted corner of the gold market by Fisk and Gould collapsed and price fluctuations became less violent, indicators had been installed in 300 offices.

During and following the Civil War there was a vast increase in the quantity of securities, due in part to bonded operations in public finance and in part to the financing of railroads and other enterprises on an unprecedented scale by the sale of stocks and bonds. In consequence, the gold indicator was soon improved by E. W. Andrews, Thomas A. Edison, and others and adapted to the recording of market quotations. The Gold & Stock Telegraph Co. was organized in 1867, and a rival company, using Charles T. Chester's Manhattan ticker, was founded in 1871. The ticker services originated by these two companies were the beginnings of the later country-wide networks of market quotation circuits.

The vast expansion of stock-exchange operations, previous to 1929, led to demand for a ticker service capable of handling the enlarged

volume of quotations with a minimum of delay and error. The result was the high-speed stock ticker introduced in 1929 and installed in 1930 throughout the country.

The ticker is a form of the printer telegraph which commonly uses the type wheel instead of the type bar. The type are placed, that is to say, not at the ends of bars, as on a typewriter, but at the circumference of a wheel. The type wheel and a gear wheel are attached to the same shaft. Corresponding to the type of the type wheel are the teeth or notches of the gear wheel. The gear wheel is operated by an electromagnet, and the movement of the armature steps up the gear wheel and with it, the type wheel. Another magnet controls the movement of the tape across the printing position or point of contact between tape and type wheel.

The wheel revolves once for the printing of each character, and since it is geared at a speed of 500 characters per minute, there are 500 revolutions per minute. As no one person could possibly prepare quotations and feed them into the transmitter at so high a rate of speed, one of the principal changes in the new system is an arrangement for the alternate feeding of the transmitter by several operators. Reporters on the floor of the exchange note changes in quotations as sales are made. These changes are written out carefully and checked, and put in pneumatic tubes which converge at an operating platform. Here the quotations are typed on teletypes, or ordinary printer telegraphs, which put the quotations into code on perforated tapes. There are as many of these teletype operators as are necessary for taking care at once of all quotations reported from the floor of the exchange. As the perforated tapes emerge from the teletypes, "comparers" check them to see that they conform to the reports as received from the floor, and errors are eliminated. The several tapes are perforated at a speed very much below 500 characters per minute. On the platform there is an automatic reperforating device operating so rapidly that the perforated tapes emerging from the teletypes are fed into it alternately.

The quotations are thus reduced to code and consolidated in the form of a single perforated tape. On the platform near the reperforator is a tape transmitter. The tape transmitter is connected by circuit with the sending apparatus, or master transmitter, which is located in another room. This master transmitter has already been described as having a speed of 500 characters per minute. For sending each character over the wire, eight so-called impulses are necessary:

(1) The start impulse, for initiating the revolution of the type wheel.

(2)-(6) The selection of the character to be printed, that is, the position on the type wheel where the character selected is located. (A 5-unit code is used, the characters being represented on the perforated tape by perforations running in number from 1 to 5, which in turn set up combinations or permutations of 5 positive-negative impulses.)

(7) An impulse for selecting between letters and figures (corresponding to the operation of the shift key on a typewriter, except that in this case the operation is from neutral to letter or figure as the case may be).

(8) Stop impulse.

Although the type wheel revolves 500 times per minute, there is a stop after each revolution. This is for the purpose of synchronizing

the action of the master transmitter with that of each of the several thousand receiving tickers throughout the country. The network of circuits connecting the master transmitter and the receiving tickers is handled by an elaborate system of relay switches and by repeaters on the longer circuits. Relays are also used for locating trouble.

Market quotations are expressed by characters or symbols, mainly letters and figures. Each ticker receives the same characters, just as each subscriber to a periodical receives the same periodical. The total output of the operators of the ticker system may be expressed in the form of the number of characters printed by each ticker multiplied by the average number of tickers. In Morse operation, reception of standardized data such as market quotations requires more operators than transmission requires, for one transmitting operator can send over several circuits but every circuit must be manned by a receiving operator. Reception by ticker is entirely automatic over all circuits connected with the transmitting mechanism, and only one transmission is now necessary, no matter how numerous the circuits may be.

Productivity of Labor in Ticker Service

INFORMATION regarding the exchange ticker service as operated locally in the central financial district of New York City is available as far back as 1890. Changes in the productivity of labor in handling the ticker service in this limited area are shown in Table 1.

TABLE 1.—CHANGES IN THE PRODUCTIVITY OF LABOR, NEW YORK STOCK EXCHANGE TICKER SERVICE¹

| Year | Daily average of tickers in use ² | Estimated total number of characters printed on all tickers ² | Operators of ticker service | | | | | | All employees, ticker service | | | | | | | |
|---------|--|--|-----------------------------|---|----------|--|------|---|-------------------------------|----------------|---|----------|--|------|---|------|
| | | | Average number | Index of changes in average output per operator | | Number necessary on basis of output per operator in— | | Additional number necessary on basis of output per operator in— | | Average number | Index of changes in average output per employee | | Number necessary on basis of output per employee in— | | Additional number necessary on basis of output per employee in— | |
| | | | | | | | | | | | | | | | | |
| | | | | 1890=100 | 1920=100 | 1890 | 1920 | 1890 | 1920 | | 1890=100 | 1920=100 | 1890 | 1920 | 1890 | 1920 |
| 1890... | 395 | 2,686,000,000 | 8 | 100 | 18 | 8 | 2 | --- | 20 | 100 | 32 | 20 | 6 | --- | --- | |
| 1895... | 611 | 4,163,354,000 | 6 | 207 | 38 | 12 | 2 | 6 | 26 | 119 | 38 | 31 | 10 | 5 | --- | |
| 1900... | 837 | 8,551,629,000 | 9 | 283 | 52 | 25 | 5 | 16 | 33 | 193 | 61 | 64 | 20 | 31 | --- | |
| 1905... | 1,176 | 12,254,390,400 | 10 | 365 | 67 | 37 | 7 | 27 | 43 | 212 | 67 | 91 | 29 | 48 | --- | |
| 1910... | 1,355 | 11,192,435,500 | 10 | 333 | 61 | 33 | 6 | 23 | 42 | 198 | 63 | 83 | 26 | 41 | --- | |
| 1915... | 1,120 | 12,589,248,000 | 11 | 341 | 63 | 38 | 7 | 27 | 40 | 234 | 74 | 94 | 30 | 54 | --- | |
| 1916... | 1,349 | 17,283,118,200 | 11 | 468 | 86 | 51 | 9 | 40 | 49 | 263 | 83 | 129 | 41 | 80 | --- | |
| 1917... | 1,434 | 16,237,325,400 | 11 | 440 | 81 | 48 | 8 | 37 | 57 | 212 | 67 | 121 | 38 | 64 | --- | |
| 1918... | 1,337 | 14,625,977,800 | 11 | 396 | 73 | 44 | 8 | 33 | 57 | 191 | 60 | 109 | 34 | 52 | --- | |
| 1919... | 1,441 | 20,470,413,700 | 13 | 469 | 86 | 61 | 11 | 48 | 60 | 254 | 80 | 152 | 48 | 92 | --- | |
| 1920... | 2,068 | 23,783,654,400 | 13 | 545 | 100 | 71 | 13 | 58 | 56 | 316 | 100 | 177 | 56 | 121 | --- | |
| 1921... | 1,993 | 20,162,583,100 | 13 | 462 | 85 | 60 | 11 | 47 | 50 | 300 | 95 | 150 | 48 | 100 | ³ 2 | |
| 1922... | 2,030 | 26,991,286,000 | 13 | 618 | 113 | 80 | 15 | 67 | 54 | 372 | 118 | 201 | 64 | 147 | 10 | |
| 1923... | 2,112 | 26,081,299,200 | 12 | 648 | 119 | 78 | 14 | 66 | 2 | 59 | 329 | 104 | 194 | 61 | 135 | 2 |
| 1924... | 2,045 | 30,948,621,000 | 20 | 461 | 85 | 92 | 17 | 72 | ³ 3 | 344 | 109 | 230 | 73 | 163 | 6 | |
| 1925... | 2,249 | 41,290,965,300 | 18 | 683 | 125 | 123 | 23 | 105 | 5 | 68 | 452 | 143 | 307 | 97 | 239 | 29 |
| 1926... | 2,424 | 46,488,684,000 | 18 | 769 | 141 | 138 | 25 | 120 | 7 | 75 | 462 | 146 | 347 | 110 | 272 | 35 |
| 1927... | 2,643 | 58,448,887,800 | 18 | 967 | 177 | 174 | 32 | 156 | 14 | 87 | 500 | 158 | 435 | 137 | 348 | 50 |
| 1928... | 2,957 | 73,987,688,400 | 17 | 1296 | 238 | 220 | 40 | 203 | 23 | 100 | 551 | 174 | 551 | 174 | 451 | 74 |
| 1929... | 3,572 | 93,587,114,400 | 18 | 1549 | 284 | 279 | 51 | 261 | 33 | 128 | 544 | 172 | 696 | 220 | 568 | 92 |
| 1930... | 3,812 | 96,733,693,200 | 17 | 1695 | 311 | 288 | 53 | 271 | 36 | 157 | 459 | 145 | 721 | 228 | 564 | 71 |

¹ Figures apply only to central financial district of New York. The same service is now transmitted to several thousand additional tickers without additional operators except a few for emergency use.

² Figures derived from tables in New York Stock Exchange Yearbook.

³ Fewer than in 1920.

On the basis of the daily average, there were 395 tickers in use in 1890 and 3,812 in 1930. The average number of characters printed per ticker was 6,800,000 in 1890 and 25,376,100 in 1930. The total number of characters received by all subscribers on their tickers increased from 2,686,000,000 in 1890 to 96,733,693,200 in 1930.

These vast numbers, of course, mean little except as a basis for indicating relative productivity. The number of operators increased from 8 in 1890 to 17 in 1930, while the total number of employees rose from 20 to 157. Taking 1890 as the base or 100, the index of changes in output per operator runs from 100 to 1695, practically a 1,600 per cent increase, while the productivity of all employees combined runs from 100 in 1890 to 459 in 1930, more than a 350 per cent increase. Taking 1920 as the base or 100, the index of productivity of operators more than tripled, running from 100 in 1920 to 311 in 1930; while the index for all employees runs from 100 in 1920 to 145 in 1930.

Table 1 also gives estimates of the number of workers that would be necessary in successive years on the basis of the productivity of workers in 1890 and in 1930. On the basis of the productivity of operators in 1890, 288 operators instead of 17 would be required for the output of 1930; and on the basis of the productivity of 1920, 53 operators instead of 17 would be required for the output of 1930.

If we should base the estimates on the productivity of the Morse telegrapher, and assume the sending of exchange quotations over Morse circuits, several thousand Morse operators would be required. At least three Morse operators with separate circuits, each taking a portion of the quotations, would be required for one transmission; and since the number of drop circuits on a Morse circuit is limited, a considerable number of transmissions would be necessary. In place of every receiving ticker position there would be required at least three Morse telegraphers to receive and write out the quotations. In place of the tickers given in Table 1 alone, considerably more than 10,000 Morse receiving operators would be necessary.

Such estimates are too hypothetical, however, to have great practical significance. The telegraphic handling of market quotations was never done exclusively by Morse, and would never have reached its present extent by means of Morse circuits.

But the extension of the ticker system beyond the local limits of the New York financial district has been accompanied not by a mere hypothetical loss of opportunities for employment but rather by the actual displacement of large numbers of Morse operators. This will be apparent to anyone who is acquainted with the methods used before the introduction of ticker service for handling market quotations. Before recalling these methods and explaining their effects in displacing telegraph operators, it is desirable to describe the process by which the various ticker services have been extended and made available in virtually all sections of the country.

It was not till March 15, 1926, that stock-exchange ticker service was inaugurated west of Kansas City. It was not till 1927 that service was extended to such important cities as Atlanta, Birmingham, Denver, Salt Lake City, Portland, Seattle, Tacoma, and Los Angeles. Four years later, by 1931, the high-speed ticker circuits extended to all but three of the States of the Union, and tickers in Canada and Cuba as well as 45 States and the District of Columbia received

quotations from one master transmitter. The number of cities in the United States with ticker circuits direct from the New York Stock Exchange was only 121 in 1926 as compared with 369 in 1930 (including Canada and Cuba, 377). The rapid extension of the service since 1926 is shown in Table 2.

TABLE 2.—EXTENSION OF TICKER SERVICE FOR STOCK-EXCHANGE QUOTATIONS, 1926 TO 1931¹

| Year | Number of States receiving service | Number of cities receiving service | Number of tickers in service | | | Average number of characters printed per ticker |
|-----------|------------------------------------|------------------------------------|------------------------------|-------|--------|---|
| | | | Stock | Bond | Total | |
| 1926..... | 24 | 121 | 4,368 | 899 | 5,267 | 19,178,500 |
| 1927..... | 26 | 157 | 5,408 | 889 | 6,297 | 22,114,600 |
| 1928..... | 36 | 230 | 6,963 | 953 | 7,916 | 25,021,200 |
| 1929..... | 41 | 336 | 9,437 | 1,068 | 10,505 | 26,200,200 |
| 1930..... | 43 | 369 | 8,372 | 928 | 9,300 | 25,376,100 |
| 1931..... | 46 | 318 | 5,824 | 628 | 6,452 | ² 18,277,100 |

¹ Basic data from New York Stock Exchange Yearbooks; figures for Canada and Cuba excluded.

² First 9 months only.

There are two main exchanges in New York City for handling securities, and their quotations are now sent out by direct ticker service to virtually all parts of the country. In each case bond quotations are handled by a separate ticker system. In addition, there are many local or sectional exchanges for handling securities, and many commodity exchanges, equipped with ticker services. In 1930 there were more than 30 exchange ticker systems. The quotations of about 20 additional exchanges were handled by ordinary telegraphic methods.

For most of the exchanges there is no available record of output in terms of characters printed, such as was used in Table 1, but a less adequate indication of increased productivity is afforded by changes in the number of tickers without taking into account the increasing average capacity of the tickers. On this basis, Table 3 affords an estimate of the changes in productivity of operators of the principal market-quotation ticker services from 1921 to 1931.

TABLE 3.—CHANGES IN PRODUCTIVITY OF OPERATORS OF PRINCIPAL MARKET-QUOTATION SERVICES AS INDICATED BY CHANGES IN NUMBER OF TICKERS PER OPERATOR, 1921 TO 1931

| Year | Average number of tickers in use | Average number of operators | Tickers per operator | | Number of operators necessary on basis of productivity per operator in 1921 | Additional number of operators necessary on basis of productivity per operator in 1921 |
|-----------|----------------------------------|-----------------------------|----------------------|--------------------------|---|--|
| | | | Actual number | Index numbers (1921=100) | | |
| 1915..... | | 140 | | | | |
| 1921..... | 3,706 | 68 | 54.5 | 100.0 | 68 | |
| 1925..... | 6,705 | 84 | 79.8 | 146.4 | 123 | 39 |
| 1929..... | 13,736 | ¹ 153 | 89.8 | 164.8 | 252 | 99 |
| 1931..... | 11,178 | 117 | 95.5 | 175.2 | 205 | 88 |

¹ Number abnormally large during transition to new high-speed ticker.

The average number of tickers in daily use for the direct handling of the quotations of exchanges increased from 3,706 in 1921 to 13,736 in 1929, and then declined by 1931 to 11,178. During the transition to the new high-speed ticker, the number of operators increased to 153, and the number in 1931 (117) is also probably abnormal due to the desire to test the new system thoroughly and guard against breakdowns. But in spite of the transition, and in the face of a large decline in the total number of tickers, the average number of tickers per operator continued to increase consistently from 54.5 in 1921 to 95.5 in 1931. Table 3 also gives estimates of the number of operators necessary if their average productivity had remained the same as in 1921—estimates having little significance aside from a theoretical interest. The number of operators actually employed was never large. In 1915, when ticker services were limited to a few large cities, the number of operators was 140, as compared with 117 in 1931, when there were many new services, many thousands of additional tickers, and circuits extending not only to virtually all parts of the United States but to Canada and Cuba as well.

Closely related to the market-quotation ticker services are the ticker systems operated by various companies for furnishing standardized business news. But it is not practicable to send out business news in a form as highly standardized as are exchange quotations, for the varying ideas and needs of different groups and sections make necessary a process of selecting and editing the news to fit the different conditions.

In keeping with this idea of adaptation of service to needs of clients, one of the principal companies engaged in providing a financial-news ticker service has several circuits. On the New York metropolitan circuit, the tickers furnish news adapted to the conditions prevailing there. Circuits running to adjacent cities, to New England, to the South, and to the West have separate transmissions with similar adaptations of the news. A single company maintains business-news tickers in more than 100 cities.

Effects of Ticker on Employment of Telegraph Operators

IN CONSIDERING the effects of the extension of ticker systems on the numbers and status of telegraph operators, there are three principal modes of approach.

(1) We may inquire, in the first place, merely as to the number of ticker operators at different periods and compute the decline, if any, in the number of operators actually engaged in handling the tickers. But the system is, and always has been, so largely mechanical, due to the perfecting of drop circuits and the automatic operation of receiving tickers, that the number of operators directly engaged in the handling of tickers has never been large enough to justify any considerable attention. The numbers given in Table 3, although not complete, include most of the ticker systems, and reveal the slight importance, from the point of view of number directly affected, of this mode of approach. In 1915 the number was 140; in 1931 it was 117. As compared with 1925, there was an increase in number of ticker operators from 84 to 117. Obviously, from the point of view of direct displacement of ticker operators, the improvement and extension of ticker systems are without significance.

(2) A second mode of approach is to compute the changes in number of employment opportunities on the basis of the changing productivity of employees. This method is used in Tables 1 and 3, which are accompanied by comments relating to the results attained. There are various bases for computing changes in productivity, as the dates 1890 and 1920, for example, in Table 1. In Table 3, because of lack of basic data as to output, it was necessary to limit the computation to the changes in the average number of tickers handled per operator. The validity of the assumption that the increasing productivity per employee means loss of employment opportunities depends on the further assumption that demand for the increased output was not dependent on the higher rate of productivity per employee. In the case of the ticker systems, there is no way of testing adequately the validity of the second assumption, though undoubtedly the general expansion of business in recent years would have been accompanied by a considerable increase in demand for ticker service without any material improvement in the rate of productivity. But in any event, this mode of approach, in connection with ticker systems, has a hypothetical quality which gives to the results a degree of unreality.

(3) The third method of getting at the effects of the improvement and extension of ticker service on telegraph operators takes into account the earlier and alternative systems of transmitting information now handled by ticker.

Outside of a few great centers, particularly the financial district of New York, market quotations were formerly handled by Morse operators. The principal users of information concerning market changes were brokers' offices and newspapers. The newspapers received their market news as well as general news largely over Morse circuits. The larger brokers employed skilled Morse operators to quote the market changes to their branch offices and correspondents. In these offices, Morse operators received the quotations by ear from the sounder and as they translated the quotations, frequently marked them on the boards for the information of customers. Orders and reports were also handled by Morse operators.

Newspapers now almost without exception depend either on quotation service sent out by the ordinary printer telegraph (teletype) or on intermittent ticker service, or on both. Brokers, except in remoter places, now depend on tickers, and the printed ticker tape is copied by assistants who are merely board markers. In many offices, even the board markers are now being displaced by teleregisters for automatically displaying market changes in customers' rooms, and by a magnified and illuminated projection of the moving ticker tape on a screen. By August, 1931, teleregisters had been installed in more than 200 brokers' offices, as far west as Chicago, with remoter installations planned, all handled by a single operating center in New York. The extent of displacement as a result of these various innovations can not be measured statistically, but in the aggregate it is very large. Nor are the problems of displacement of a highly skilled and specialized group such as Morse telegraphers materially lessened by the fact that the innovations, in spite of their exceptionally automatic nature, have themselves afforded some additional jobs for mechanics.

TABLE 4.—EVOLUTION OF TICKER SYSTEM OF ONE OF THE EXCHANGES FROM SEMIAUTOMATIC TO AUTOMATIC OPERATION

| Year | Average number of tickers in use in— | | | Average number of operators | | |
|-----------|---|-------------------|-------|-----------------------------|--------|-------|
| | Metro- politan circuits | Other circuits | Total | Morse | Ticker | Total |
| 1921..... | 399 | | 399 | | 3 | 3 |
| 1922..... | 369 | | 369 | | 3 | 3 |
| 1923..... | 394 | 55 | 449 | 5 | 5 | 10 |
| 1924..... | 361 | 63 | 424 | 6 | 6 | 12 |
| 1925..... | 525 | 123 | 648 | 7 | 7 | 14 |
| 1926..... | 700 | 217 | 917 | 8 | 8 | 16 |
| 1927..... | 734 | 252 | 986 | 10 | 10 | 20 |
| 1928..... | 1,150 | 398 | 1,548 | 12 | 12 | 24 |
| 1929..... | 1,585 | 755 | 2,340 | 13 | 14 | 27 |
| 1930..... | 1,568 | 900 | 2,468 | | 4 | 4 |
| 1931..... | 1,191 | 699 | 1,890 | | 4 | 4 |

An illustration of one phase of the displacement of operators is given in Table 4. Before 1921, information concerning the activities of the exchange represented in Table 4 was sent to brokers and others in different parts of the country by ordinary telegraphic means, usually on Morse circuits. It was not till 1921 that members and others in the immediate vicinity were served by tickers. Between 1923 and 1929 the ticker service was extended to several important cities, but not by direct ticker circuits. Quotations were sent by Morse operators to each city, and there put on local ticker circuits by ticker operators. In 1929 the intermediate Morse circuits were eliminated, as were also the transmitting tickers in the several cities, and all tickers received quotations from one station over direct circuits. The table shows the displacement of the intermediate Morse operators, and also the displacement of the local ticker operators; but the number of telegraphers who had been employed by news bureaus, brokers, or others to transmit the quotations, and who were actually displaced by the tickers, can not be shown, even approximately. Nor is it possible to estimate satisfactorily the number of telegraphers who would be employed to-day to handle the quotations if the ticker system had never been introduced. If only a small fraction of the 2,468 subscribers to this one ticker service in 1930 were now depending on Morse telegraphers for market quotations, the added employment opportunities would be considerable.

Another illustration of the effects of the ticker system is to be found in one of the commodity exchanges which still combines, in its quotation service, the use of Morse operators and automatic tickers. In this case, quotations originate in two cities. On the floor of the exchange in each city there are two Morse operators, one to send and one to receive quotations. Ticker service is provided in six cities. In each of these there are two Morse operators to receive quotations from the two originating offices, and one ticker operator to put the quotations on the local ticker circuits. Thus there are 4 operators connected immediately with the exchange, and 18 connected with the 6 ticker offices in the 6 cities in which there is enough demand to justify the maintenance of the service. Direct ticker circuits are expected to eliminate all of the 16 Morse operators and most of the

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| | Metro- politan circuits | Other circuits | Total | Morse | Ticker | Total |
| 1921..... | 399 | ----- | 399 | ----- | 3 | 3 |
| 1922..... | 369 | ----- | 369 | ----- | 3 | 3 |
| 1923..... | 394 | 55 | 449 | 5 | 5 | 10 |
| 1924..... | 361 | 63 | 424 | 6 | 6 | 12 |
| 1925..... | 525 | 123 | 648 | 7 | 7 | 14 |
| 1926..... | 700 | 217 | 917 | 8 | 8 | 16 |
| 1927..... | 734 | 252 | 986 | 10 | 10 | 20 |
| 1928..... | 1, 150 | 398 | 1, 548 | 12 | 12 | 24 |
| 1929..... | 1, 585 | 755 | 2, 340 | 13 | 14 | 27 |
| 1930..... | 1, 568 | 900 | 2, 468 | ----- | 4 | 4 |
| 1931..... | 1, 191 | 699 | 1, 890 | ----- | 4 | 4 |

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8 ticker operators, just as in similar cases eliminations have already been made.

In the case of financial news, a somewhat similar intermediate stage of joint Morse and ticker operation is observable. A single company which now has tickers in more than a hundred cities formerly transmitted the news over Morse circuits to the principal cities which it served, and in each city it maintained a separate transmitting office for putting the news on local ticker circuits. There is now direct transmission by ticker on all except one Morse circuit. Again, in the case of this company's news ticker system, as well as in the case of other ticker systems, there has been a large but incalculable displacement by virtue of the fact that many of those who subscribe to ticker services formerly gave employment to telegraph operators. In this case, also, as well as in the others, it is apparent that the extension of ticker service has not only eliminated many telegraphers but has forestalled a rapid increase in the number of operators which would have been required to meet the growing demand for immediate information in an age of ever-quickenning tempo.

Review of the White House Conference Report on Child Labor

By ELLA ARVILLA MERRITT, UNITED STATES CHILDREN'S BUREAU

THE White House Conference on Child Health and Protection, organized in 1930 under the auspices of President Hoover, divided its work among various committees. The report of the subcommittee on child labor has just been published.¹

The concept of child labor upon which this report is based includes any work of those not physically mature which deprives the individual of the opportunity to achieve "normal development" in the highest and most comprehensive sense of that term. The children's charter adopted by the conference sets up as a standard that for every child there must be "protection against labor that stunts growth, either physical or mental, that limits education, that deprives children of the right of comradeship, of play, and of joy." The Subcommittee on Child Labor has given in this report a comprehensive and well-rounded picture of child labor in this country, its extent and distribution, its causes and effects, its conditions and hazards, and its problems in special fields, as well as of the legal regulation of all phases of child labor and its administration. On the basis of these findings and of the accumulated experience of the specialists in the different fields of child labor who made up the subcommittee, a series of recommendations is presented which should serve as a guide to legislators and child welfare workers everywhere in surveying the needs of the individual situations with which they must deal and in meeting them adequately.

It was found that the subcommittee's field had such varying technical aspects that an adequate survey required the services of specialists in dealing with the different phases of the problems involved. Four groups were therefore organized, as follows: (1) Employment of children in nonagricultural occupations, with Julia C. Lathrop as chairman; (2) employment of children in agriculture, with Dr. Samuel McCune Lindsay, chairman of the National Child Labor Committee, at its head; (3) hazardous occupations, industrial accidents, and workmen's compensation for injured minors, under the leadership of Fred M. Wilcox, chairman of the Industrial Commission of Wisconsin; and (4) administrative problems with reference to laws affecting the employment of minors, with Frances Perkins, industrial commissioner, New York State Department of Labor, as chairman. Ellen Nathalie Matthews, then director of the industrial division of the Children's Bureau of the United States Department of Labor, was chairman of the subcommittee.

In preparing the report, all available material on child labor was searched, and information from widely scattered sources, both published and unpublished, has been collected for the first time. It was assembled primarily from published articles, reports of child labor studies and surveys, reports of State labor, education, and other public agencies, as well as from surveys made by the numerous private agencies in this field. Important sources of information were the

¹ White House Conference on Child Health and Protection. Committee on Vocational Guidance and Child Labor. Child Labor. Report of the subcommittee on child labor. New York, The Century Co., 1932.

publications of the Children's Bureau of the United States Department of Labor and the unpublished material in its files which was placed at the disposal of the conference. The committee was also greatly indebted for material to the National Child Labor Committee. A canvass of all interested organizations was made as to pending research and unpublished material, and such of this as could be obtained and was of value to this study was analyzed and included in the report. In addition, the committee had the assistance of several special inquiries pertaining to the employment of children in non-agricultural occupations, made by outside agencies. Certain information on wages and hours of work was furnished through the cooperation of continuation schools in a number of communities in several States. An inquiry also into the administration of State laws relating to the employment of children on the stage and in theatrical exhibitions was conducted by the United States Children's Bureau through correspondence, and was supplemented by a more detailed field inquiry into the administration of the law regulating such employment in New York State, made by the New York Child Labor Committee. In the field of administration, the report makes use of a study of the physical examinations of children entering industry, conducted by the National Tuberculosis Association, and a study of the issuance of employment certificates, made for the subcommittee on health and education of the Illinois Commission on Child Welfare Legislation which was surveying the Illinois needs at that time.²

It is recognized, both in the factual sections of the report and in its recommendations, that any rightly conceived program of protection of the young worker has two aspects—one, legal, concerning itself largely with prohibitions, restrictions, and administrative methods; the other, more general in scope, having to do with education, guidance, recreation, and hygiene, and with all those social and economic forces and institutions that affect not only the working child but all children. These various problems affecting the health and welfare of children were made the subject of special study by other sections and subcommittees of the conference. The Subcommittee on Child Labor therefore confined its study largely to the legal and factual aspects of child labor, with only brief reference to the more fundamental problems and the more constructive programs. The report, however, points out the paramount importance of these problems and programs in any consideration of child labor and employed youth.

A study of this report brings home to the reader a realization that child labor means different things at different times in different places and that, although the United States has no child-labor problems of the kind that are common in China and India to-day, or that characterized the early stages of development of the textile industry in New England, nevertheless large numbers of children are still engaged in taxing, disagreeable and even dangerous occupations, or while still immature are assuming burdens of industrial life which exclude them from the activities of play and education essential if they are to reach maturity with physical vigor unimpaired and with the mental training and social equipment necessary for good citizenship.

The latest statistics available for the use of the committee as to the total number of children employed in the United States, their ages,

² The reports made by the New York Child Labor Committee and the National Tuberculosis Association are published in full as Part V of the volume.

geographical distribution, and the industries and occupations in which they work, were those of the 1920 census, since the figures for the 1930 census were not yet compiled. So far as possible, evaluations of the trend between 1920 and 1930 were made on the basis of available material. The lack of these statistics for the last decennial census, however, does not in fact detract from the usefulness of the report, as it appears from the 1930 census data so far published that both the number and distribution of children employed were so affected by the unemployment situation at the census date that they would not accurately reflect conditions in a normal period.

Special attention has been paid to the presentation of the laws regulating child labor in the different fields covered by the report. Though analysis of these laws is difficult because of the fact that they differ widely from State to State in their application, their exceptions, and their administrative measures, summaries are presented which give a general picture of their standards, supplemented by surveys of the more important details necessary for the understanding of the problems to be met by regulatory and administrative methods.

A survey of the information made available by this report falls naturally into a discussion of its four main sections: Nonagricultural occupations; Employment in agriculture; Hazardous occupations, industrial accidents, and workmen's compensation; and Administration of laws affecting the employment of minors.

Employment of Children in Nonagricultural Occupations

A GENERAL summary of the field of child employment in nonagricultural occupations gives the available information as to the trend from 1920 to 1930 and the increase in school attendance during the decade, and presents information as to kinds and conditions of work in which children engage, their hours of labor, their wages, and the type and extent of legal regulation. The usually recognized causes which influence children to go to work—poverty and dissatisfaction with school—are evaluated as far as possible. As to the demand for child labor, it is stated that the proportion which children form of the total number of workers in any industry is so small as to appear negligible from the point of view of the industry, and that the testimony of persons in direct contact with child workers bears out this conclusion. Evidence is presented as to the undesirable effects of employment at an early age, due to the child's physical and mental immaturity, to the fact that it cuts short the child's education and leaves scant time for needed play during daylight hours.

Though proportionately the number of children in industry is small, the fact is brought out that children are employed by hundreds and thousands in a great variety of nonagricultural occupations. Various as the jobs are, almost all of them have this in common, that they are unskilled, mechanical, and monotonous, offering the child little opportunity to acquire either experience or skill likely to be of value to the adult worker, and most of the children go from their children's jobs into work that requires only greater physical strength or maturity and can be learned at the most in a few weeks' time.

Many children, it is shown, work in badly ventilated, poorly lighted, insanitary places. Many work long hours; many are employed in connection with machinery that offers a high degree of

hazard for the immature; and many are in occupations in which dusty or lint-laden air, fumes, and poisonous substances create conditions favorable to tuberculosis and to industrial poisoning, to both of which children and young persons are especially susceptible; others do taxing and exhausting work. Although the majority of regularly employed children under 16 at the present time are 14 and 15 years old, certain kinds of work, such as work in canneries, industrial home work, and newspaper selling, employ large numbers of very young children. Perhaps one of the most demoralizing conditions of the work of children is the fact they are frequently unemployed and subject during their most plastic years to the deteriorating effects of idleness.

Weekly wages for children under 16 in any kind of work almost invariably average under \$15 and generally under \$10.

This brief survey of the field is followed by an analysis giving the factual basis for these general conclusions and for the committee's recommendations. Here is collated and summarized material from literally hundreds of reports and surveys, each covering perhaps only a small phase of the subject or dealing with a special group of child workers. Special attention is given to types of work offering special problems, including the canning industry, industrial home work, street trades, work outside school hours, and appearance of children in theatrical exhibitions and motion pictures. The conditions and surroundings which make these kinds of child employment require a different form of regulation and different machinery for enforcement from that practicable in regulation of work in factories and stores, as well as the community and social problems involved in such regulation, are set forth in detail.

In the recommendations of the committee it is recognized that certain economic, social, and educational measures are needed in addition to adequate legislative restrictions and safeguards in order to protect young workers from the dangers of employment at too early an age or under adverse conditions. It is therefore urged that special attention be given to the solution of the problems of adult unemployment, farm economics, and a living wage, "since an income earned by the chief wage earner of the family sufficient to maintain a decent standard of living is basic to a normal solution of the problem of child labor as it is to other problems of child welfare." It is also pointed out that numerous studies of working children have shown that for large proportions of young workers causes connected with school have furnished the chief motive for leaving school to go to work, especially for pupils of somewhat limited mental ability, and it is urged that as a child-labor measure some content of education be found and provided for these children which will mean real development for them, since the early years of adolescence when they are likely to leave school for employment are the very years when they are most in need of guidance. In the field of legal regulation it is recommended that standards be set up for all kinds of gainful employment of children, but that special consideration be given to proper types of control in certain employments, such as industrial home work and street trades, now largely unregulated. Specifically it is proposed that no child under 16 should be permitted to leave school for work; that school attendance be required for children up to 16 years of age; that higher age minima should be set for occu-

pations physically or morally hazardous; that no minor under 18 should work more than 8 hours a day or 44 hours a week, or at night; and that all children under 18 should be required to obtain employment certificates before going to work and be required to have a certificate of physical fitness from a public physician. Special regulation of street work, with the consideration of a minimum age of 16 for newspaper selling, the prohibition of industrial home work, and the consistent application of provisions of the general child-labor law to canneries, work outside school hours, and work in theatrical exhibitions and moving pictures are recommended. It is also pointed out that among the child-labor problems are those involving interstate relations, as for example, the problem of the migrant worker, and that the general progress toward the goal of establishing adequate standards for the health and protection of all working children would be enormously facilitated by a national minimum standard.

Employment of Children in Agriculture

THIS section of the report, prepared by the National Child Labor Committee, was based primarily upon a study of all the investigations of the employment of children in agriculture which have been made by public and private agencies since 1920, including rural educational surveys. In view of the extensive research already existing on this subject and of the vast territory to be covered if a further check-up were attempted, no new field studies were conducted. It is pointed out that in several respects agriculture presents the most serious child-labor problem in the United States at the present time. It involves more child workers than all other occupations together, 61 per cent of the total number of working children 10 to 16 years old; it includes a large number of younger children, 87 per cent of all working children 10 to 14 years old; it employs thousands of children as migratory workers; it presents difficult problems of control and, even more than industrial work, it interferes seriously with school attendance. The development of agriculture into a large-scale industry has led to the employment of thousands of children, sometimes on their parents' farms but often among strangers or in migratory camps, under conditions almost as undesirable as any found in unregulated industrial employment. Much of this employment is characterized by long hours, repetitive processes, unsuitable and sometimes hazardous conditions, interference with school attendance, and absence of supervision. Special attention in the report is given to the nature and conditions of the work performed by children, including detailed descriptions of the kinds of work children do in the most important farming operations—general farming, beet culture, tobacco and onion raising, the cultivation of small fruits, berries, and orchard fruits, truck farming, and grain farms. Information is given as to hours of work, the duration of the season, wages, housing of migratory workers, and health and accident hazards. The difficulties which confront attempts to curb child labor in agriculture are the public view of farm work for children as being healthful work; the economic status of the general farming population; the sentiment against interfering with the parent's control over the child; the seasonal nature of the work; the administrative difficulties involved in enforcing legislation for children working in scattered rural dis-

tricts, and to a considerable extent outside school hours; the limitations of State jurisdiction; and the local prejudice against furnishing school facilities for migratory children.

For all these reasons, the approach to the regulation of employment is made by the committee through recommendations looking to the extension of more adequate school-attendance requirements and facilities to rural children and their efficient enforcement. The changes in rural educational organization and administration recommended by the subcommittee on rural schools of the committee on the school child of the White House Conference are indorsed.

It is insisted that rural children should be afforded educational opportunities equivalent to those afforded city children, that the age and attendance standards for schooling should be the same for both groups, and that districts should be responsible for the schooling of migratory children. For children hired out or working under some form of family wage or contract system other safeguards are recommended, including a minimum age of 16 for agricultural work during school hours and of 14 outside school hours, except that children 12 to 14 years may be employed outside of school hours in light agricultural tasks a few hours a day during a short season. Recommendation is made that permits be required for agricultural work of children under 16 not working on the home farm, that special attention be given to employment of children about dangerous agricultural machinery, and that the daily hours of work or of work and school be limited to eight. It is also recommended that the regulation of sanitary conditions of labor camps for migratory workers should be placed under a State department, such as that of labor or health.

Hazardous Occupations, Industrial Accidents, and Workmen's Compensation

THE material for this section was prepared by the Children's Bureau of the United States Department of Labor and is based to a large extent upon information obtained in connection with an inquiry into the operation of workmen's compensation laws as they affect minor workers, at that time under way in the bureau. The provisions of these laws and the court decisions relating to the extent to which illegally employed minors are entitled to compensation, and those relating to the basis on which compensation to injured minors is computed, are summarized, and information is given as to the administration of these provisions, particularly those awarding additional compensation in the case of injuries to minors illegally employed. The legal regulations affecting the employment of minors in hazardous occupations are also analyzed. In addition, a review, supplemented by a tabular summary, is given of available statistics of accidents to minor workers.

The fact is emphasized that some risk of accident and injury must be assumed by the adult worker even though technical improvements in industry continue, but that this is a risk which the child or young person can not afford to assume, nor can society afford to permit him to do so. All investigators have emphasized the extreme liability of young workers to accident, partly the result of the natural curiosity, irresponsibility, and carelessness of youth, and of their peculiar susceptibility to injury from poisons, vitiated air, and other unfavorable conditions in industry.

The scarcity of information on industrial accidents to minors is pointed out and it is urged that the States develop a program for continuous study of all industrial injuries to minors under 18. In this connection the recommendation is made that the States compile their statistics of accidents on a comparable basis and that the Federal Government, through the Children's Bureau, cooperate with them by compiling and publishing annual statistics of industrial accidents to minors. The present legislation on employment in hazardous occupations is reviewed and it is pointed out that although existing legislation, taking the States as a whole, shows that attention has been directed toward many of the known dangerous occupations, the laws of the States show great inequality and in many respects inadequately protect minor workers, particularly those 16 and 17 years of age. It is recommended, both because the present body of knowledge of industrial hazards is incomplete and because State legislation is inadequate, that such legislation be revised on the basis of a careful and comprehensive study of the hazards of occupations in which minors are engaged, as well as of possible safeguards in such occupations and any special susceptibility of immature workers to industrial poisons and other harmful substances. Since the problem affects working minors throughout the entire country, it is recommended that a permanent committee be appointed to work in cooperation with the Children's Bureau in studying all phases of the problem.

In the light, however, even of present knowledge it is recommended that the employment of such children under 16 as may be permitted to work in a restricted list of occupations should be prohibited on or in connection with machinery of any kind, and that minors of 16 and 17 should be prohibited from employment on dangerous machinery not guarded at the point of operation, or in the operation of elevators, or in other occupations proved by accident records to be hazardous to them. Power should be given to State labor boards to determine what occupations are dangerous and to prohibit employment of minors therein. In regard to provisions relating especially to minors in workmen's compensation laws, it is urged that in all States not yet having such laws legislation be passed providing (1) that the employee's future earning capacity be considered as the basis for computing compensation to minors for permanent disability, and (2) that minors injured while illegally employed should be brought under the workmen's compensation law, and that, in addition, provision should be made for the payment of extra compensation in such cases.

Administration of Laws Affecting the Employment of Minors

ALTHOUGH one or another of the aspects of administration of child-labor laws has been treated in various studies and surveys, this report for the first time brings together in brief compass and in one place the accumulated experience, under different laws and in different places, in dealing with all the different phases of administration and enforcement. The necessary correlation between the issuance of employment certificates, the proper enforcement of school-attendance laws, and the inspection of establishments and imposition of penalties for violation, is clearly indicated. The report consists in great part of a discussion and criticism of administrative procedure and methods

possible under different types of law, illustrated by such examples of actual practice as could be found. The extent of the problem is shown by the unevenness of enforcement, so great that in many places one or another provision of the law is probably being violated for a majority of the children at work. The discovery, adoption, and improvement of the methods of putting into effect administrative standards for enforcement has at all times followed long after the establishment of the standards themselves by legislative fiat, and examples of inadequate enforcement, often extreme, have been found wherever investigations have been made and have extended to all phases of child-labor legislation.

The section of the report dealing with employment-certificate systems not only gives a summary of methods of administration and information in regard to the machinery of issuing certificates but also points out the standards as to evidence of age, physical examinations, educational requirements, and supervision of certificate issuance which have been found effective. The careful enforcement of school attendance of minors of school-attendance age up to the age when they may legally go to work, and after that time if they are not actually and legally employed, is shown to be basic to child-labor law enforcement, since it automatically prevents employment during school hours of underage children and of children of certificate age who have failed to obtain legal authorization to work, and insures the educational training which the law contemplates as a prerequisite for employment. It is also shown that in so far as the enforcement of school attendance of minors and effective employment certificate systems do not automatically prevent the illegal employment of minors, inspection of places of employment must be relied upon to accomplish that end and that, moreover, such inspection is practically the only method of enforcing regulations applying to children at work. Inspection has an important function also in educating employers both to understand and to obey the law, and in obtaining evidence to be used in the prosecution of employers in cases where such prosecution is deemed necessary.

Administrative recommendations include: Adequate legal provisions as to employment-certificate issuance, including standards for evidence of age and proof of physical fitness; the enforcement of school attendance, with special attention to the problems of school attendance of children in rural districts and of the education of the so-called migratory child workers; methods of inspection adapted to good enforcement; provision of official personnel qualified by education, experience, and training, adequately compensated and appointed under the merit system; such personnel to be sufficient in number for effective certificate issuance, school-attendance enforcement, and inspection; and supervision by State agencies in the development of effective administration of each of these activities.

EMPLOYMENT CONDITIONS AND UNEMPLOYMENT RELIEF

Family Unemployment in Syracuse, N. Y., November, 1931

By JOHN NYE WEBB and FREDERICK E. CROXTON, COLUMBIA UNIVERSITY

IN THE Labor Review for April, data were presented from an unemployment study made in Syracuse, N. Y., in November, 1931.¹ From the schedules used in that study additional facts have been tabulated in order to analyze employment and unemployment in respect to family groups. The results of this study are strictly comparable with those for Buffalo, N. Y., shown in the May issue of the Labor Review. As in the case of the Buffalo data, the Syracuse figures include all males 18 years of age or over (except students) and all females 18 years of age or over who were usually employed. Thus the following groups were not included: (1) Males and females under 18 years of age, some of whom were undoubtedly employed full or part time, (2) males 18 years of age or over who were students, some of whom were certainly employed part time and a very few full time, and (3) females 18 years of age or over who were working part time by choice. In making this analysis of family groups, roomers have not been included as part of the family.

The first section of the accompanying table shows data concerning 4,637 family groups of which 634, or 13.7 per cent, reported no one employed. Of these 634 families, however, there were 55 which, while reporting no one employed, also reported that those persons unemployed were voluntarily so. These 55 family groups have been eliminated from the data shown in the second part of the table.

Of the 4,582 family groups with one or more members desiring work, 579, or 12.6 per cent, were families in which no one was employed, and 766, or 16.7 per cent, were families with but one member working and that person working only part time. Just under 30 per cent of the 4,582 families had either no member employed or but one member working part time. In 833, or 18.1 per cent, of the family groups, either no one was employed or only one member was employed and that one was working less than half of usual full time.

Data were collected on the schedules of the employment status of roomers, but not of persons furnished meals only. Of the families which reported no member employed, approximately 1 in 13 had one or more roomers, and of the families reporting only one member working part time almost exactly 1 in 20 had one or more roomers.

Included in the present analysis are 55 family groups of related persons sharing living arrangements but not having a definite head. Because of the small number of such groups they were not segregated for separate study.

¹ See also special Bulletin 173 of the Division of Statistics and Information of the New York State Department of Labor.

Among the 579 family groups reporting no one employed there were 11 which had no head. There were also four families which reported involuntary unemployment of one or more members, but in which the head of the family was unemployed of his own volition. Deducting these 15 family groups leaves 564 families in which the head of the family was involuntarily unemployed and in which no one else was working.

The family groups having one person employed part time numbered 766. Of these there were two families which had no head. Of the remaining 764 family groups the head was employed part time and was the only person employed in 649 families, while in 115 families the head was unemployed and some other member of the family was employed part time.

Combining two classifications reveals 1,213 family groups in which the head was either, (a) involuntarily unemployed (and no one else was working) or (b) the sole worker and employed only part time. These 1,213 families amounted to a little over one-fourth of the families having a head and having one or more members desiring work.

Following is the table showing family employment status for the families enumerated in the seven selected areas in Syracuse:

FAMILY EMPLOYMENT STATUS IN SYRACUSE, NOVEMBER, 1931

| Family groups having— | All family groups | | Family groups with 1 or more members desiring work | |
|---|-------------------|----------|--|----------|
| | Number | Per cent | Number | Per cent |
| No one employed..... | 634 | 13.7 | 579 | 12.6 |
| 1 person working part time..... | 766 | 16.5 | 766 | 16.7 |
| Less than one-half time..... | 254 | 5.5 | 254 | 5.5 |
| One-half time or more..... | 493 | 10.6 | 493 | 10.8 |
| Fraction not reported..... | 19 | .4 | 19 | .4 |
| 2 or more persons working part time..... | 95 | 2.0 | 95 | 2.1 |
| 1 person working full time..... | 2,318 | 50.0 | 2,318 | 50.6 |
| 2 or more persons working full time..... | 512 | 11.0 | 512 | 11.2 |
| 2 or more persons working full and part time..... | 312 | 6.7 | 312 | 6.8 |
| Total..... | 4,637 | 100.0 | 4,582 | 100.0 |

State Legislation for the Relief of Unemployment

DURING the legislative year of 1931, 44 States met in regular session, and of these, 16 States¹ also met in extra or special session. The legislatures of Louisiana and Mississippi had no regular session but were called into special sessions by their governors. While some of the State legislatures, especially those in the South and Southwest, were called to relieve the situation in the cotton and oil industries, most of them were called to provide some measure of relief due to the widespread unemployment conditions. Some of the State legislatures called in 1931 did not meet until late in the year and hence did not adjourn until early in 1932.

Due to the increased need for relief, and the fact that many localities were unable to provide any further help to their citizenry, the de-

¹ Arizona, Arkansas, Florida, Georgia, Idaho, Illinois, Massachusetts, Nebraska, New Jersey, New York, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, and Wisconsin.

mand for the State to aid the local governments has increased during the past year.

The form of relief has varied in the several States. Some have provided relief directly to the people while others have appropriated large sums in building-construction projects in order to alleviate the unemployment emergency. Some of the States have met the problem by extending to the local governments or political subdivisions powers permitting them to raise additional revenue for aiding families in need.

Provision for Direct Aid

Illinois.—Many emergency bills for the relief of unemployment were passed in Illinois. Among the measures was one appropriating \$20,000,000 for the relief of the needy residents of the State; the Illinois Emergency Commission was formed to handle the fund. The money is to be raised by a tax assessment on property, unless the voters decide at the next State election in November to approve a bond issue for \$20,000,000.

New Jersey.—The special session of 1931 created (ch. 394) an emergency relief administration and appropriated approximately \$10,000,000. The State director of this administration (appointed by the governor) is authorized to appoint a county director of relief in each county. Funds for poor relief are to be granted on a population basis, and local political subdivisions are to be reimbursed for 40 per cent of the cost of dependency relief.

Other acts passed authorize local authorities to issue bonds, and provide for the institution of public works to relieve the emergency.

New York.—In its special session of 1931 the Legislature of New York created (ch. 798)² a temporary emergency relief administration and appropriated \$20,000,000. Home relief (defined as food, fuel, shelter, clothing, light, medicine, and medical attendance at home) and work relief are provided.

Ohio.—House bill No. 102 (p. 11), Session Laws of 1931, authorized municipal corporations, township or county, to borrow money and to issue bonds to cover deficiencies in poor relief funds caused by the abnormal unemployment conditions. Proceeds from the sale of the bonds are to be paid into an emergency poor relief fund.

Oklahoma.—The Legislature of Oklahoma (by senate bill No. 23, p. 354) appropriated the sum of \$300,000 for the purpose of providing food, clothing, fuel, and shelter for the destitute and suffering citizens of the State. The same act created an emergency relief board.

Pennsylvania.—In the special session of 1931 (act No. 7E, p. 1503) the Pennsylvania Legislature appropriated \$10,000,000 to the department of welfare for the various political subdivisions charged with the care of the poor. According to the preamble of the act, "present conditions of unemployment aggravate the normal situation facing public authorities charged with the care of the poor, impose a burden which local government is unable to bear, and demand the exercise of the police power of the Commonwealth for the protection of public health, safety, morals and welfare, and the assumption by the Commonwealth of its governmental duty to care for the poor."

Rhode Island.—An unemployment relief commission was created during the special session of 1931 (by ch. 1855). The law authorized

² See Labor Review, November, 1931, pp. 59-61, for analysis of act.

cities and towns to borrow money for unemployment relief and to issue notes, and appropriated \$1,500,000 to be used for the purchase of the notes by the State.

Provision for Public Works, Etc.

IN ADDITION to the direct aid afforded by several States, other States have appropriated money to help relieve the unemployment situation by the employment of additional persons and by the construction of public works. In Massachusetts, over \$3,000,000 was appropriated for the employment of additional persons as a measure of relief during the emergency. For such purposes the following appropriations were authorized by the legislature in 1931: Chapter 1, \$330,700; chapter 14, \$106,440; chapter 112, \$270,000; chapter 268, \$2,759,000; chapter 465 (extra session), \$245,000. In addition to these amounts, \$8,500,000 was provided for by a bond issue, of which amount the department of public works was authorized to expend \$7,000,000 for the acceleration of work on State highways and \$1,500,000 for the erection of a State building.

Wisconsin (by ch. 187, Acts of 1931) authorized direct relief to the poor by the towns, villages, and cities. Several other States (Arkansas, Louisiana, Minnesota, Missouri, South Carolina, and West Virginia) made provision for emergency relief caused by disasters and unemployment.

Certain other States provided for the appointment of investigative commissions: California (ch. 61), Maryland (J. Res. No. 19, p. 1428), Minnesota (ch. 5), Tennessee (H. J. Res. No. 14, p. 431), and Wisconsin (ch. 67, sec. 110).

Emergency Labor Camps in Pennsylvania

THE cooperation of the various State departments of Pennsylvania was an outstanding feature in connection with the emergency labor camps organized last winter by the governor. The operation of these camps is described in a report by the director of these camps in the March, 1932, issue of Labor and Industry, the monthly publication of the Pennsylvania Department of Labor and Industry.

As soon as authorization for a camp in a certain county was received by the State highway department, the department of military affairs was notified in order that it might deliver camp equipment and plan the camp layout. The water supply of the prospective site was inspected by the department of health, which in addition supervised the engineering in connection with camp construction, furnished medical supervision for examining the campers, and medical treatment for them during their stay in these emergency quarters.

The department of labor registered the thousands of applicants who were eager to get work on the State highways and live in the camps, and selected those who were to be employed.

Rural road construction was, of course, directly supervised by the State highway department and the camp became a project of the highway department of the particular county in which such camp was set up. The Pymatuning Reservoir clearing work is under the super-

vision of the department of forest and waters. Other departments, however, rendered assistance as in the case of the highway camps.

There were six camps authorized in six different counties for the State highway department. The first two camps were opened on November 16, 1931, at Normalsville, in Fayette County, and Claysville, in Washington County. Normalsville is a typical mountain camp located some 10 miles from Connelsville, on an improved highway but quite a distance from any village or town. The camp at Claysville was just outside the borough limits and was immediately adopted by the people of Claysville as a part of their community life. The men at the Claysville camp spent some of their evenings in the town and in the three months of operation, not a single case of misbehavior has been reported to the camp authorities. The third camp was located at Kittanning Point, in Blair County, just outside the city of Altoona, set in a valley surrounded by mountains. This was the only camp located within a few miles of a large city and while there was some fear expressed that the men of a large community would not want to stay in the camps, this camp operated as smoothly and successfully as any of the others. The fourth camp was opened at Pleasant Unity some 10 miles south of Greensburg in rolling farm country just outside of Mount Pleasant. The fifth and sixth camps were the only camps located in the northern part of the State, the fifth at Curwensville, in Clearfield County, and the sixth at Cramer, in Jefferson County. The men staying in the Curwensville camp had the advantage of being near a town, the camp being located only a mile from Curwensville. The Cramer camp was located on the property of a coal-mine operator at Cramer and only a few miles from Sykesville.

Each camp had regular National Guard equipment and had accommodations for from 70 to 90 men. A captain of the National Guard was assigned to live at each camp and was responsible both for the equipment and the men's welfare. He was aided in each instance by a State police officer, who also resided at the camp. The floors of the tents were boarded and also their side walls, approximately 3 feet in height. In each tent a pyramid stove furnished ample heat even in severe weather. The mess tent also had a wooden floor and wooden tables and benches, and was heated by a large stove. The regular army kitchen of each camp was under the direction of a National Guard cook. Three good substantial meals were served daily and there was no limit on second helpings.

Up to February 18, 1932, the registrars of the department of labor and industry had accepted 14,728 applications. When a camp first opened all that department's bureaus were called on for assistance and department employees stationed within 50 miles of the camp were ordered to report and remain there as long as their services were required. Registration was begun before dawn and frequently was not completed before 9 or 10 o'clock at night. Before daylight hundreds of men would be waiting at the registration tent. Many of the men left home the afternoon before and walked from 10 to 50 miles so that they would be among the first applicants. Others arrived in cars, which were lined up for blocks along the highway. Trucks were hired by certain towns to carry their unemployed to register, and a few applicants from the mountain counties came by horseback. Among the approximately 15,000 registered candidates for highway employment were white and colored, native and foreign born. The majority were laborers, but every profession was represented. The director of camps reports that in the taking of this large number of applications there was not a semblance of disorder among the men.

Each camp had a chief registrar whose duty was to select, from the file of registered men, those who were apparently most in need and to place them in the camp. No political pressure was allowed in the selection of workers and letters of recommendation from

political leaders were absolutely ignored. After consultation with relief groups, men in receipt of relief were given consideration. However, men who had been able to carry on with small savings accumulated while they had jobs were also considered for camp employment, as it was felt that if such men did not secure work they would soon have to seek charity and that they should be encouraged for having been able to maintain themselves.

Registrars needed both tact and diplomacy to select those who could be accommodated at the camps from the large number of applicants, some of whom had to be pacified in their disappointment at not securing work. It was difficult to explain to an unsuccessful candidate why his family was not in as dire need as that of John Jones, who was selected for camp employment. Often men broke down when they tried to tell their troubles. Some of those who came to register brought their children with them to show how sorely they needed clothing and shoes. Many a family has been given a warm meal at the camp when it was not possible to give the father employment.

The physical condition of many applicants constituted a problem for the registrars. Some of the men were so undernourished that it was frequently found necessary for them to remain in the camp three or four days on light employment before they were physically fit to do road-building work. Many of the men did not have shoes of proper weight to work out of doors; others lacked heavy clothing. The governor met this problem by purchasing an immense stock of clothing from the United States Government, which was distributed among the campers who were most in need of it.

The labor turnover of the emergency camps is very interesting, as it shows that very few men complained about living in camps and were in the most part well satisfied with the food that was given to them. Most of the men who did leave found that they were physically unable to work out in the open in the winter weather. Each man was allowed 30 days' employment in camp and the majority wanted to stay an additional period. The labor turnover for the second month of operation shows that the largest turnover was at Kittanning Point, where the wage rate was lowest.

The director of the camps reports that practically every man who remained the full 30-day period weighed 5 to 15 pounds more than when he was admitted to the camp. Pale complexions indicative of undernourishment were replaced by the ruddy wind tan which characterizes out-door workers. The improvement in their physical condition gave the men more energy to go home and make greater efforts to secure other work.

When the emergency camps were first projected it was thought by many people that it would not be possible for men to live in the open during the winter season and that little work would be done. According to the director of these camps, their three months' operation has proved successful in providing employment. Many men through their camp work were able to provide for their own loved ones, and, as noted above, to improve their physical condition. On the other hand, "the State accomplished a great deal in the building of rural roads out in farm communities, which under normal conditions might not have been built, and the various departments that have had a part in this worth-while project have shown what real cooperation means. The camps are a pleasing example of employment versus charity."

Unemployment in Foreign Countries

THE following table gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports, from April, 1930, to the latest available date.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES¹

| Date (end of month) | Australia | | Austria | Belgium | | | |
|---------------------|----------------------------|----------|---|----------------------------------|----------|----------------------|----------|
| | Trade-unionists unemployed | | Compulsory insurance, number unemployed in receipt of benefit | Unemployment insurance societies | | | |
| | Number | Per cent | | Wholly unemployed | | Partially unemployed | |
| | | | | Number | Per cent | Number | Per cent |
| 1930 | | | | | | | |
| April | (?) | | 192,477 | 13,715 | 2.2 | 36,065 | 5.8 |
| May | (?) | | 162,678 | 12,119 | 1.9 | 38,761 | 6.1 |
| June | 80,595 | 18.5 | 150,075 | 12,226 | 1.9 | 41,336 | 6.5 |
| July | (?) | | 153,188 | 15,302 | 2.4 | 48,580 | 7.7 |
| August | (?) | | 156,145 | 17,747 | 2.8 | 51,649 | 8.2 |
| September | 90,379 | 20.5 | 163,894 | 23,693 | 3.8 | 61,623 | 9.9 |
| October | (?) | | 192,778 | 27,322 | 4.3 | 54,804 | 8.5 |
| November | (?) | | 237,745 | 38,973 | 6.1 | 76,043 | 12.0 |
| December | 104,951 | 23.4 | 294,845 | 63,585 | 9.3 | 117,167 | 17.0 |
| 1931 | | | | | | | |
| January | (?) | | 331,239 | 77,181 | 11.1 | 112,734 | 16.2 |
| February | (?) | | 334,041 | 81,750 | 11.7 | 121,906 | 19.4 |
| March | 113,614 | 25.8 | 304,084 | 81,305 | 11.3 | 125,972 | 17.7 |
| April | (?) | | 246,845 | 70,377 | 10.0 | 110,139 | 15.6 |
| May | (?) | | 208,852 | 56,250 | 7.9 | 97,755 | 13.8 |
| June | 118,424 | 27.6 | 191,150 | 62,642 | 8.9 | 101,616 | 14.4 |
| July | (?) | | 194,364 | 64,644 | 9.1 | 116,747 | 16.3 |
| August | (?) | | 196,321 | 70,893 | 9.9 | 120,669 | 16.8 |
| September | 120,694 | 28.3 | 202,130 | 74,175 | 10.3 | 119,433 | 16.6 |
| October | (?) | | 228,101 | 82,811 | 11.3 | 122,733 | 16.8 |
| November | (?) | | 273,658 | 93,487 | 13.3 | 134,799 | 19.2 |
| December | 118,732 | 28.0 | 329,627 | 128,884 | 17.0 | 159,941 | 21.1 |
| 1932 | | | | | | | |
| January | (?) | | 358,114 | 153,920 | 20.0 | 179,560 | 23.2 |
| February | (?) | | 361,948 | 168,204 | 21.3 | 180,079 | 22.8 |
| March | 120,366 | 28.3 | 352,444 | 155,653 | 19.4 | | |
| April | (?) | | 303,888 | 152,530 | 18.8 | | |

| Date (end of month) | Canada | Czechoslovakia | | Danzig (Free City of) | Denmark | |
|---------------------|--|---------------------------------------|--|---------------------------------|---|------|
| | Per cent of trade-unionists unemployed | Number of unemployed on live register | Trade-union insurance funds—unemployed in receipt of benefit | Number of unemployed registered | Trade-union unemployment funds—unemployed | |
| | | | Number Per cent | | Number Per cent | |
| 1930 | | | | | | |
| April | 9.0 | 79,721 | 42,664 3.7 | 18,371 | 33,471 | 11.8 |
| May | 10.3 | 77,069 | 41,098 3.8 | 16,232 | 27,966 | 9.4 |
| June | 10.6 | 73,464 | 37,853 3.4 | 14,975 | 24,807 | 8.7 |
| July | 9.2 | 77,309 | 46,800 4.1 | 15,330 | 26,200 | 9.3 |
| August | 9.3 | 88,005 | 52,694 4.7 | 15,687 | 26,232 | 9.0 |
| September | 9.4 | 104,534 | 57,542 5.3 | 16,073 | 27,700 | 9.0 |
| October | 10.8 | 122,379 | 61,213 5.5 | 17,307 | 32,880 | 11.4 |
| November | 13.8 | 155,203 | 65,904 5.9 | 20,272 | 44,200 | 15.3 |
| December | 17.0 | 239,564 | 93,476 8.3 | 24,429 | 71,100 | 24.6 |
| 1931 | | | | | | |
| January | 16.0 | 313,511 | 104,580 9.5 | 27,081 | 70,961 | 24.2 |
| February | 15.6 | 343,972 | 117,450 10.0 | 28,192 | 73,427 | 26.0 |
| March | 15.5 | 339,505 | 119,350 10.0 | 27,070 | 67,725 | 22.1 |
| April | 14.9 | 296,756 | 107,238 8.9 | 24,186 | 45,698 | 15.3 |
| May | 16.2 | 249,686 | 93,941 7.6 | 20,686 | 37,856 | 12.3 |
| June | 16.3 | 220,038 | 82,534 6.6 | 19,855 | 34,030 | 11.3 |
| July | 16.2 | 209,233 | 82,759 6.6 | 20,420 | 36,369 | 11.8 |
| August | 15.8 | 214,520 | 86,261 6.9 | 21,509 | 35,060 | 11.8 |
| September | 18.1 | 228,383 | 84,660 6.7 | 22,922 | 35,871 | 12.1 |
| October | 18.3 | 253,518 | 88,600 6.9 | 24,932 | 47,196 | 16.0 |
| November | 18.6 | 336,874 | 106,015 8.2 | 28,966 | 66,526 | 22.3 |
| December | 21.1 | 480,775 | 146,325 11.3 | 32,956 | 91,216 | 30.4 |
| 1932 | | | | | | |
| January | 22.0 | 583,138 | 186,308 14.0 | 34,912 | 106,464 | 35.1 |
| February | 20.6 | 631,736 | 197,612 14.8 | 36,258 | 112,346 | 37.3 |
| March | 20.4 | 633,907 | | 36,481 | 113,378 | 37.5 |
| April | | 547,507 | | | 90,704 | 29.9 |

See footnotes at end of table.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

| Date (end of month) | Estonia | Finland | France | Germany | | | |
|---------------------|--|---------------------------------|--|---------------------------------|----------------------------|-------------------------------|---|
| | Number unemployed remaining on live register | Number of unemployed registered | Number of unemployed in receipt of benefit | Number of unemployed registered | Trade-unionists | | |
| | | | | | Per cent wholly unemployed | Per cent partially unemployed | Number unemployed in receipt of benefit |
| 1930 | | | | | | | |
| April..... | 2, 227 | 7, 274 | 1, 023 | 2, 786, 912 | 20. 3 | 12. 1 | 2, 081, 068 |
| May..... | 2, 065 | 4, 666 | 859 | 2, 634, 718 | 19. 5 | 12. 0 | 1, 889, 240 |
| June..... | 910 | 3, 553 | 1, 019 | 2, 640, 681 | 19. 6 | 12. 6 | 1, 834, 662 |
| July..... | 762 | 4, 026 | 856 | 2, 765, 258 | 20. 5 | 13. 9 | 1, 900, 961 |
| August..... | 1, 039 | 5, 288 | 964 | 2, 883, 000 | 21. 7 | 14. 8 | 1, 947, 811 |
| September..... | 1, 414 | 7, 157 | 988 | 3, 004, 000 | 22. 5 | 15. 1 | 1, 965, 348 |
| October..... | 3, 282 | 10, 279 | 1, 663 | 3, 252, 000 | 23. 6 | 15. 4 | 2, 071, 730 |
| November..... | 5, 675 | 10, 740 | 4, 893 | 3, 683, 000 | 26. 0 | 16. 1 | 2, 353, 980 |
| December..... | 6, 163 | 9, 336 | 11, 952 | 4, 384, 000 | 31. 7 | 16. 9 | 2, 822, 598 |
| 1931 | | | | | | | |
| January..... | 5, 364 | 11, 706 | 28, 536 | 4, 887, 000 | 34. 2 | 19. 2 | 3, 364, 770 |
| February..... | 4, 070 | 11, 557 | 40, 766 | 4, 972, 000 | 34. 5 | 19. 5 | 3, 496, 979 |
| March..... | 2, 765 | 11, 491 | 50, 815 | 4, 756, 000 | 33. 6 | 18. 9 | 3, 240, 523 |
| April..... | 2, 424 | 12, 663 | 49, 958 | 4, 358, 000 | 31. 2 | 18. 0 | 2, 789, 627 |
| May..... | 1, 368 | 7, 342 | 41, 339 | 4, 053, 000 | 29. 9 | 17. 4 | 2, 507, 732 |
| June..... | 931 | 6, 320 | 36, 237 | 3, 954, 000 | 29. 7 | 17. 7 | 2, 353, 657 |
| July..... | 634 | 6, 790 | 35, 916 | 3, 976, 000 | 31. 0 | 19. 1 | 2, 231, 513 |
| August..... | 933 | 9, 160 | 37, 673 | 4, 215, 000 | 33. 6 | 21. 4 | 2, 376, 589 |
| September..... | 2, 096 | 12, 176 | 38, 524 | 4, 355, 000 | 35. 0 | 22. 2 | 2, 483, 364 |
| October..... | 5, 425 | 14, 824 | 51, 654 | 4, 623, 480 | 36. 6 | 22. 0 | 2, 534, 952 |
| November..... | 7, 554 | 18, 095 | 92, 157 | 5, 059, 773 | 38. 9 | 21. 8 | 2, 771, 985 |
| December..... | 9, 055 | 17, 223 | 147, 009 | 5, 668, 187 | 42. 2 | 22. 3 | 3, 147, 867 |
| 1932 | | | | | | | |
| January..... | 9, 318 | 20, 944 | 241, 487 | 6, 041, 910 | 43. 6 | 22. 6 | 3, 481, 418 |
| February..... | 9, 180 | 18, 856 | 293, 198 | 6, 128, 429 | 44. 1 | 22. 7 | 3, 525, 486 |
| March..... | 8, 397 | 16, 723 | 303, 218 | 6, 034, 100 | 44. 6 | 22. 6 | 3, 323, 109 |
| April..... | | | 290, 224 | 5, 934, 202 | | | |

| Date (end of month) | Great Britain and Northern Ireland | | | | Great Britain | Hungary | | |
|---------------------|------------------------------------|---------|---------------------|---------|--|----------------------------|-------------------|---------|
| | Compulsory insurance | | | | Number of persons registered with employment exchanges | Trade-unionists unemployed | | |
| | Wholly unemployed | | Temporary stoppages | | | Christian (Budapest) | Social-Democratic | |
| | Number | Percent | Number | Percent | | | Number | Percent |
| 1930 | | | | | | | | |
| April..... | 1,309,014 | 10.8 | 451,506 | 3.8 | 1,698,386 | 906 | 20,139 | 13.7 |
| May..... | 1,339,595 | 11.1 | 516,303 | 4.2 | 1,770,051 | 875 | 19,875 | 13.6 |
| June..... | 1,341,818 | 11.1 | 569,931 | 4.7 | 1,890,575 | 829 | 18,960 | 13.0 |
| July..... | 1,405,981 | 11.6 | 664,107 | 5.5 | 2,011,467 | 920 | 19,081 | 13.2 |
| August..... | 1,500,990 | 12.4 | 618,658 | 5.1 | 2,039,702 | 847 | 21,013 | 14.5 |
| September..... | 1,579,708 | 13.1 | 608,692 | 5.0 | 1,114,955 | 874 | 22,252 | 16.0 |
| October..... | 1,725,731 | 13.9 | 593,223 | 4.8 | 2,200,413 | 999 | 22,914 | 16.7 |
| November..... | 1,836,280 | 14.8 | 532,518 | 4.3 | 2,274,338 | 975 | 23,333 | 17.0 |
| December..... | 1,853,575 | 14.9 | 646,205 | 5.3 | 2,392,738 | 935 | 24,648 | 17.9 |
| 1931 | | | | | | | | |
| January..... | 2,044,209 | 16.5 | 618,633 | 5.0 | 2,613,749 | 953 | 26,191 | 19.1 |
| February..... | 2,073,578 | 16.7 | 623,844 | 5.0 | 2,627,559 | 965 | 27,089 | 19.8 |
| March..... | 2,052,826 | 16.5 | 612,821 | 5.0 | 2,581,030 | 996 | 27,092 | (?) |
| April..... | 2,027,896 | 16.3 | 564,884 | 4.6 | 2,531,674 | 1,042 | 27,129 | (?) |
| May..... | 2,019,533 | 16.3 | 558,383 | 4.5 | 2,596,431 | 843 | 26,131 | (?) |
| June..... | 2,037,480 | 16.4 | 669,315 | 5.4 | 2,629,215 | 751 | 23,660 | (?) |
| July..... | 2,073,892 | 16.7 | 732,583 | 5.9 | 2,662,765 | 876 | 26,329 | (?) |
| August..... | 2,142,821 | 17.3 | 670,342 | 5.4 | 2,732,434 | 941 | 28,471 | (?) |
| September..... | 2,217,080 | 17.9 | 663,466 | 5.3 | 2,879,466 | 932 | 28,716 | ----- |
| October..... | 2,305,388 | 18.1 | 487,591 | 3.8 | 2,755,559 | 1,020 | 28,998 | ----- |
| November..... | 2,294,902 | 18.0 | 439,952 | 3.4 | 2,656,085 | 1,169 | 29,907 | ----- |
| December..... | 2,262,700 | 17.7 | 408,117 | 3.2 | 2,569,949 | 1,240 | 31,906 | ----- |
| 1932 | | | | | | | | |
| January..... | 2,354,044 | 18.4 | 500,746 | 4.0 | 2,728,411 | 1,182 | 32,711 | ----- |
| February..... | 2,317,784 | 18.2 | 491,319 | 3.8 | 2,701,173 | 1,083 | 32,645 | ----- |
| March..... | 2,233,425 | 17.5 | 426,989 | 3.3 | 2,567,332 | 1,024 | 31,340 | ----- |
| April..... | 2,204,740 | 17.3 | 521,705 | 4.1 | 2,652,181 | ----- | ----- | ----- |

See footnotes at end of table.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

| Date (end of month) | Irish Free State | Italy | | Latvia | Netherlands | |
|---------------------|--|--------------------------------------|------------------------------|---|--|----------|
| | Compul- sory insur- ance— number unem- ployed | Number of unem- ployed registered | | Number unem- ployed remaining on live register | Unemployment in- surance societies— unemployed | |
| | | Wholly unem- ployed | Partially unem- ployed | | Number | Per cent |
| 1930 | | | | | | |
| April..... | (²) | 372,236 | 24,305 | 3,683 | 28,421 | 6.9 |
| May..... | (²) | 367,183 | 22,825 | 1,421 | 26,211 | 6.3 |
| June..... | 19,146 | 322,291 | 21,887 | 779 | 23,678 | 5.5 |
| July..... | (²) | 342,061 | 24,209 | 607 | 29,075 | 6.7 |
| August..... | (²) | 375,548 | 24,056 | 573 | 32,755 | 7.6 |
| September..... | 20,775 | 394,630 | 22,734 | 1,470 | 35,532 | 8.2 |
| October..... | 22,990 | 446,496 | 19,081 | 6,058 | 41,088 | 9.6 |
| November..... | 25,622 | 534,356 | 22,125 | 8,608 | 46,807 | 11.8 |
| December..... | 26,167 | 642,169 | 21,788 | 10,022 | 81,204 | 18.2 |
| 1931 | | | | | | |
| January..... | 28,681 | 722,612 | 27,924 | 9,207 | 100,340 | 23.2 |
| February..... | 26,825 | 765,325 | 27,110 | 8,303 | 109,235 | 23.5 |
| March..... | 25,413 | 707,486 | 27,545 | 8,450 | 102,743 | 21.8 |
| April..... | 23,970 | 670,353 | 28,780 | 6,390 | 68,860 | 14.3 |
| May..... | 23,016 | 635,183 | 26,059 | 1,871 | 60,189 | 12.2 |
| June..... | 21,427 | 573,593 | 24,206 | 1,584 | 59,573 | 11.7 |
| July..... | 21,647 | 637,531 | 25,821 | 2,169 | 69,026 | 13.3 |
| August..... | 21,897 | 693,273 | 30,636 | 4,827 | 70,479 | 15.3 |
| September..... | 23,427 | 747,764 | 29,822 | 7,470 | 72,738 | 15.7 |
| October..... | 26,353 | 799,744 | 32,828 | 13,605 | 84,548 | 18.0 |
| November..... | 30,865 | 878,267 | 30,967 | 18,377 | 107,372 | 18.5 |
| December..... | 30,918 | 982,321 | 32,949 | 21,935 | 157,933 | 29.7 |
| 1932 | | | | | | |
| January..... | 31,958 | 1,051,321 | 33,277 | 26,163 | 145,124 | 27.0 |
| February..... | 31,162 | 1,147,945 | 26,321 | 21,836 | 139,956 | 25.4 |
| March..... | 30,866 | 1,053,016 | 31,636 | 22,912 | 119,423 | 21.6 |
| April..... | | 1,000,025 | | | 121,378 | 21.7 |

| Date (end of month) | New Zealand | Norway | | Poland | Rumania | |
|---------------------|---|--|----------|--|---|--------|
| | Trade- unionists, number unem- ployed | Trade-unionists (10 unions) unem- ployed | | Number unem- ployed registered with em- ployment offices | Number unem- ployed remaining on live register | |
| | | Number | Per cent | | | |
| 1930 | | | | | | |
| April..... | (²) | 6,701 | 15.8 | 19,829 | 271,225 | 13,412 |
| May..... | 5,884 | 5,239 | 12.2 | 16,376 | 224,914 | 25,096 |
| June..... | (²) | 4,700 | 10.8 | 13,939 | 204,982 | 22,960 |
| July..... | (²) | 4,723 | 10.8 | 11,997 | 193,687 | 23,236 |
| August..... | 7,197 | 5,897 | 13.4 | 12,923 | 173,627 | 24,209 |
| September..... | (²) | 7,010 | 15.7 | 17,053 | 170,467 | 39,110 |
| October..... | (²) | 8,031 | 18.0 | 20,363 | 165,154 | 36,147 |
| November..... | 8,110 | 9,396 | 21.4 | 24,544 | 209,912 | 42,689 |
| December..... | (²) | 11,265 | 25.5 | 27,157 | 299,797 | 36,212 |
| 1931 | | | | | | |
| January..... | (²) | 11,692 | 26.3 | 28,596 | 340,718 | 38,804 |
| February..... | (²) | (²) | | 29,107 | 358,925 | 43,270 |
| March..... | 38,028 | 11,213 | 24.9 | 29,095 | 372,536 | 48,226 |
| April..... | 36,981 | (²) | | 28,477 | 351,679 | 41,519 |
| May..... | 40,507 | | | 25,206 | 313,104 | 33,484 |
| June..... | 45,264 | | | 22,736 | 274,942 | 28,093 |
| July..... | 47,772 | | | 20,869 | 255,179 | 29,250 |
| August..... | 50,033 | | | 22,431 | 246,380 | 22,708 |
| September..... | 51,375 | | | 27,012 | 246,426 | 22,969 |
| October..... | 50,266 | 9,048 | 19.6 | 29,340 | 255,622 | 28,800 |
| November..... | 47,535 | 10,577 | 22.8 | 32,078 | 266,027 | 43,917 |
| December..... | 45,140 | 12,633 | 27.2 | 34,789 | 312,487 | 49,393 |
| 1932 | | | | | | |
| January..... | 45,539 | 14,160 | 30.4 | 34,636 | 338,434 | 51,612 |
| February..... | 45,487 | 14,354 | 30.6 | 37,796 | 350,145 | 57,606 |
| March..... | | | | 38,952 | 352,754 | |
| April..... | | | | 36,993 | 328,700 | |

See footnotes at end of table.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

| Date (end of month) | Saar Ter-ritory | Sweden | | Switzerland | | | | Yugo-slavia |
|---------------------|--------------------------------------|-------------------------------|-------------|------------------------|-------------|---------------------------|-------------|--|
| | Number unem- ployed registered | Trade-unionists unemployed | | Unemployment funds | | | | Number of unem- ployed registered |
| | | | | Wholly unem- ployed | | Partially unem- ployed | | |
| | | Number | Per cent | Number | Per cent | Number | Per cent | |
| 1930 | | | | | | | | |
| April..... | 7, 522 | 38, 347 | 11. 1 | 5, 203 | 2. 1 | 12, 755 | 5. 3 | 12, 052 |
| May..... | 7, 362 | 28, 112 | 8. 3 | 5, 356 | 2. 2 | 13, 129 | 5. 4 | 8, 704 |
| June..... | 6, 330 | 28, 956 | 8. 1 | 5, 368 | 1. 7 | 17, 688 | 5. 7 | 6, 991 |
| July..... | 7, 095 | 27, 170 | 7. 8 | 4, 751 | 1. 9 | 15, 112 | 6. 2 | 7, 236 |
| August..... | 7, 099 | 28, 539 | 8. 1 | 5, 703 | 2. 3 | 19, 441 | 7. 9 | 6, 111 |
| September..... | 7, 527 | 34, 963 | 9. 8 | 7, 792 | 2. 5 | 26, 111 | 8. 3 | 5, 973 |
| October..... | 9, 013 | 43, 927 | 12. 2 | 7, 399 | 3. 0 | 23, 309 | 9. 4 | 6, 609 |
| November..... | 12, 110 | 57, 070 | 15. 3 | 11, 666 | 4. 7 | 25, 793 | 10. 5 | 7, 219 |
| December..... | 15, 245 | 86, 042 | 22. 9 | 21, 400 | 6. 6 | 33, 483 | 10. 4 | 9, 989 |
| 1931 | | | | | | | | |
| January..... | 18, 921 | 69, 437 | 19. 8 | 20, 551 | 8. 3 | 30, 977 | 12. 5 | 11, 903 |
| February..... | 20, 139 | 66, 923 | 18. 4 | 20, 081 | 7. 9 | 30, 879 | 12. 2 | 14, 424 |
| March..... | 18, 292 | 72, 944 | 19. 3 | 18, 991 | 5. 4 | 41, 880 | 12. 4 | 12, 029 |
| April..... | 18, 102 | 64, 534 | 17. 5 | 10, 389 | 4. 0 | 27, 726 | 10. 6 | 11, 391 |
| May..... | 14, 886 | 49, 807 | 13. 2 | 9, 174 | 3. 5 | 26, 058 | 9. 9 | 6, 929 |
| June..... | 15, 413 | 45, 839 | 12. 1 | 12, 577 | 3. 6 | 34, 266 | 9. 7 | 4, 431 |
| July..... | 17, 685 | 46, 180 | 12. 4 | 12, 200 | 3. 3 | 39, 000 | 11. 3 | 6, 672 |
| August..... | 20, 205 | 48, 590 | 12. 7 | 9, 754 | 3. 6 | 33, 346 | 12. 4 | 7, 466 |
| September..... | 21, 741 | 54, 405 | 13. 7 | 15, 188 | 4. 0 | 42, 998 | 11. 2 | 7, 753 |
| October..... | 24, 685 | 65, 469 | 16. 4 | 18, 000 | 4. 8 | 47, 200 | 13. 2 | 10, 070 |
| November..... | 28, 659 | 79, 484 | 19. 9 | 25, 200 | 6. 6 | 51, 900 | 14. 4 | 10, 349 |
| December..... | 35, 045 | 110, 149 | 27. 2 | 41, 611 | 10. 1 | 61, 256 | 14. 9 | 14, 502 |
| 1932 | | | | | | | | |
| January..... | 38, 790 | 93, 272 | 24. 5 | 44, 600 | 10. 6 | 67, 600 | 14. 8 | 19, 665 |
| February..... | 42, 394 | 93, 900 | 23. 0 | 48, 600 | 11. 3 | 70, 100 | 15. 0 | 21, 435 |
| March..... | 44, 883 | 98, 772 | 24. 4 | 40, 423 | 9. 0 | | | 23, 251 |

¹ Sources: League of Nations—Monthly Bulletin of Statistics; International Labor Office—International Labor Review; Canada—Labor Gazette; Great Britain—Ministry of Labor Gazette; Austria—Statistische Nachrichten; Australia—Quarterly Summary of Australian Statistics; Germany—Reichsarbeitsblatt, Reichs Arbeitsmarkt Anzeiger; Switzerland—Wirt. u. Social, Mitteilungen, La Vie Economique; Poland—Wiedomosci Statystyczne; Norway—Statistiske Meddelelser; Netherlands—Maandschrift; Sweden—Sociala Meddelanden; Denmark—Statistiske Efterretninger; Finland—Bank of Finland Monthly Bulletin; France—Bulletin du Marché du Travail; Hungary—Magyar Statisztikai Szemle; Belgium—Revue du Travail; New Zealand—Monthly Abstract of Statistics; U. S. Department of Commerce—Commerce Reports; and U. S. Consular Reports.

² Not reported.

³ Provisional figure.

⁴ New series of statistics showing unemployed registered by the employment exchanges. Includes not only workers wholly unemployed but also those intermittently employed.

⁵ Strike ended. Provisional figure.

Unemployment Relief Proposals of International Federation of Trade Unions

AT BERNE, March 16 to 18, 1932, the general council of the International Federation of Trade Unions held a conference which was attended by delegates from central trade-union organizations of 15 countries and from 26 international trade secretariats. At this meeting a resolution was adopted, without opposition, dealing with the general economic situation, of which the concluding sections presented the following proposals regarding unemployment:¹

In the forefront of immediate measures needed for the mitigation of the crisis is the creation of work for the millions of unemployed. The I. F. T. U. urges

¹ International Labor Office. Industrial and Labor Information, Geneva, Apr. 4, 1932, pp. 26-28.

strongly that credit shall no longer be squandered on armaments and on the bolstering up of bankrupt concerns, which have rationalized on irrational lines, but shall be used for the financing of large-scale schemes for the creation of work.

The natural conclusion must also be drawn from the insufficiency of the work at present available in the world to supply full employment for all workers and salaried employees. Rationalization and crisis make it imperatively necessary that the 40-hour week (five days) shall be established by law as the maximum hours of work in all concerns and all countries.

While these immediate steps are being taken to mitigate the crisis, a beginning must also be made with the transformation of the economic system. The experience of the last few years shows very plainly that the tendency of the world is to form large economic units. It is especially urgent that Europe shall be organized as an economic unit, irrespective of the adoption, now or later, of similar systems in other parts of the world.

These great economic regions must not be converted into new strongholds of monopolistic capitalism. It is the duty of the working class to use their whole influence for the creation of carefully planned spheres of regulated production, of which the ruling purpose shall be the covering of needs. Parallel with the complete transformation of the world economic system, changing the whole face of the world, there must therefore be an extension of public enterprise in all the important spheres of economic life.

The I. F. T. U. reaffirms in the strongest terms the most important international demands of the day: Planned production of raw materials; planned distribution of goods; a planned system of credit, to be secured by uniformity of the central banks; regulation of financial policy by the creation of a uniform international currency; the strictest control of banks and stock exchanges by democratic controlling bodies, and the destruction of capitalist monopolistic power by means of the strictest control of monopolies.

To-day more than ever it is the duty of all labor organizations to stand solidly together for these absolutely necessary demands in the interests of world economic salvation, regardless of the temporarily narrower interests of any individual country.

Public Works for the Unemployed in Germany¹

IN GERMANY unemployed persons may be utilized for road work as "compulsory workers" (*Pflichtarbeiter*), as "emergency workers" (*Notstandsarbeiter*), or as "voluntary workers" (*Freiwilliger Arbeitsdienst*).

Compulsory Labor

THE arrangement for "compulsory labor" is based on paragraph 91 of the law on employment agencies and unemployment insurance. It stipulates that unemployed persons under 21 years of age receiving the unemployment benefit and all recipients of emergency unemployment relief are to be required to work in return for the allowances paid them. Compulsory labor may be instituted only when the work is such as would not otherwise be performed, is productive in nature, temporary in character, and of public value. In addition to that, the work assigned to an unemployed person must to a certain extent correspond to his former occupation or profession, and he can not be asked to do work which will be of disadvantage to his future well-being.

Under the compulsory labor system an unemployed person works only the number of hours corresponding to the amount of benefit received. He does not work a regular 48-hour week. This means that an unskilled laborer, for instance, would be employed for from 2½ to 3 days a week. The financial supporters of this kind of work

¹ Data are from report of C. W. Gray, American vice consul at Berlin, dated Feb. 29, 1932.

are the communes, districts, or Provinces, which are entitled to make use of these unemployed persons without charge, the Federal Bureau of Employment Exchanges and Unemployment Insurance continuing to pay the unemployment benefits directly to the individual persons.

In practice, very little use is being made of such compulsory labor, for several reasons. One reason is that the public bodies designated to carry out such compulsory-labor projects are not in a position to bear the costs involved, as considerable funds would be required for material, tools, machinery, supervision, and technical planning; also, certain allowances have to be paid to the workers for working clothes and shoes and any other expenses which they may have as a direct consequence of their being compelled to work. Another reason is that practically all work suitable for execution under the system of compulsory labor has already been done during the past few years. A third reason for the impracticability of the plan on a wide scale is the fact that the communes prefer to award contracts to local contractors rather than undertake public works themselves; it may be and usually is stipulated in the contracts that as high as 80 per cent of the workers employed by the contractors are to be taken from the municipal welfare register. Naturally, this means the saving of considerable sums for the communes, owing to the fact that in case these persons subsequently become unemployed they are again entitled to the regular and extended unemployment benefit paid under the Federal insurance system.

Although in former years a considerable part of the work instituted as compulsory labor was road work, it never served to relieve unemployment to any appreciable extent. The unemployed utilized under the system never formed much more than 1 per cent of the total unemployed, and of these not more than 50 per cent were used for road work. The latter usually consisted of the widening, improvement, or extension of already existing roads of little importance, such as park roads and roads leading to sport fields and playgrounds.

Emergency Work

PARAGRAPH 139 of the revised law on employment agencies and unemployment insurance, dated October 12, 1929, deals with what is known in Germany as "productive unemployment relief" (*wertschaffende Arbeitslosenfürsorge*). This takes the form of "emergency work," which legally is of two distinct kinds, namely, "basic promotion" work (*Grundförderung*) and "additional promotion" work (*verstärkte Förderung*).

To carry out the "basic promotion" work the regional employment bureaus are authorized to promote any measures for reducing unemployment by the provision of work. They have been vested with the right to grant loans or subsidies for this purpose out of the funds of the Federal bureau or the emergency allowance system (financed to the extent of four-fifths by the Federal Government and one-fifth by the communes). These grants are to be made only in the amount expected to be saved, in unemployment benefits, as a result of the ensuing relief of unemployment. The measures subsidized must be of general economic value to the entire population of the respective district and must be carried out by a public body or by a public service organization. In no case may the funds be granted to private companies.

In addition, the Federal Ministry of Labor is authorized by the same law to grant loans or subsidies out of budgetary funds of the Federal Government for the institution of "emergency labor" on public works of special economic value and of special importance as regards the number of workers employed in proportion to the funds involved. This is the so-called "additional promotion" work. In general it is stipulated that the State in whose territory the work is being undertaken must contribute to the financing equally with the Federal Government.

The German Government some time ago intrusted the task of furnishing funds for the "additional promotion" work to the German Company for Public Works, formed on August 1, 1930, with the Federal Government as the sole stockholder. All grants previously made by the Government to subsidize public works were transferred to this company on that date. Due to the unfavorable condition of the Federal finances, no additional loans have been given to the company by the Government, so that at present the company relies for its operating capital entirely on incoming installment payments and interest. During the fiscal year ending March 31, 1932, it will probably have available for "additional promotion" work a sum of approximately 50,000,000 marks (\$11,900,000).

The construction of a very simple road costing 80,000 marks (\$19,040) would, under the system of emergency work, be financed in the following way: Provided that 125 emergency workers were employed one month, the Federal bureau would pay a subsidy of 10,000 marks (\$2,380) to the commune or other body acting as executor of the project, which sum would correspond to the unemployment benefits which would otherwise be due to these persons. If this project were one of especially great public value, an "additional promotion" loan of 20,000 marks (\$4,760) would probably be granted by the German Company for Public Works, and a further loan of the same amount would be made by the respective State. The remaining 30,000 marks (\$7,140) would have to be furnished by the commune or some other public body.

The calculation for the commune is entirely different if a higher-grade road is to be built, 60 per cent of the cost of which is made of materials, tools, and supervision, leaving only 40 per cent for wages. Of the amount payable for wages, only about 30 per cent can be paid to emergency workers, owing to the necessity of employing a large number of skilled men. Of the wages for the emergency workers, only one-third (10 per cent of the total amount of wages) would be advanced by the Federal bureau as a subsidy and a further 20 per cent might be given as a loan by the respective State, leaving 70 per cent of the wages still to be paid by the commune in addition to the remaining 60 per cent of the total costs. This example illustrates the comparatively small financial advantage of employing "emergency workers" in certain cases.

At the end of September, 1931, there were 39,270 workers employed in emergency work (35 per cent from the regular unemployment benefit list, 55 per cent from the emergency allowance list, and 10 per cent from the welfare relief register). Some 15,000 or 16,000 of these were utilized in road work. The period for which they had already been employed varied from 6 to 13 weeks.

As a rule, the wage rate established by collective agreement in the respective trade is paid, although the regional employment bureaus are entitled to fix the maximum wages. On an average an emergency worker is not employed for more than three months.

In the fiscal year ending March 31, 1931, workers employed under the emergency system performed 2,536,289 days of road work—1,582,192 days under the basic promotion plan and 944,097 days under both basic and additional promotion plans. Almost 50 per cent of all work carried out under the emergency system had to do with roads.

Funds amounting to 9,521,000 marks (\$2,265,998) were granted by the Federal Bureau of Unemployment Insurance, under the basic promotion scheme, for road work during the above fiscal year, which represents 37.3 per cent of the total contribution of that organization for public works during that period. Under the additional promotion scheme the Government appropriated 9,236,000 marks (\$2,198,168) for projects having to do with road work, which represents some 32 per cent of total funds set aside for work of all kinds enjoying this status. This gives a total of 18,757,000 marks (\$4,464,166), which supplemented by some seven or eight million marks (\$1,666,000 to \$1,904,000), given by the States, etc., amounts to about \$6,250,000 for the fiscal year 1930-31 on road work under the emergency system.

During the first quarter of the fiscal year ending March 31, 1932, 597,621 days of work were provided by road projects enjoying only basic promotion grants and 980,456 by road projects enjoying both forms of grants. The Federal bureau granted loans and subsidies for road work to the extent of 1,237,000 marks (\$294,406). The growing importance of road work as a means of productive unemployment relief is illustrated by the fact that 42.3 per cent of the total working-days financed under the basic promotion scheme alone and 47.7 per cent of those financed by both types of promotion were spent on road projects. Since April 1, 1931, only the German Company for Public Works has made the additional promotion grants; this type of grant has been discontinued by the regional employment bureaus.

Among the more important projects for road work enjoying both forms of grant which were begun during the fiscal year 1930-31 under the emergency work plan may be mentioned: (1) The construction of various Bavarian State roads using the services of 13,000 emergency workers for a total of 160,000 working-days; and (2) the improvement of provincial roads in Rhineland and Westphalia employing 1,211 emergency workers for 406,400 working-days. During the first quarter of the current fiscal year the largest project undertaken was the widening of several provincial roads in East Prussia; this gave employment to 1,500 workers for 210,000 working-days.

Voluntary Labor Service

THE third method of utilizing unemployed persons for road work is known as the "voluntary labor service." This system may be called a modification of the compulsory labor service as advocated by various political parties and other organizations in Germany. The present form of voluntary labor service is based on paragraph 139a of the law on employment agencies and unemployment insurance, which is an amendment to the original text and is contained in the

Government's emergency decree of June 6, 1931. This paragraph authorizes the Federal Bureau for Employment Agencies and Unemployment Insurance to grant funds or subsidies for certain projects, in an amount not to exceed that expected to be saved in unemployment benefits as a result of decreasing the number of beneficiaries. The projects aided under this system must have a public value (as for instance, the upkeep, improvement, and construction of roads, the reclaiming and improvement of land, and the laying out of lots for settlements and vegetable gardens for unemployed) and must be work that would otherwise under no circumstances be carried out, even under the system of emergency labor. Grants may be made for this purpose only to public authorities, such as States, Provinces, districts, and communes, to federations of communes, or to associations founded for the express purpose of instituting work under the voluntary labor service. In no case may funds be granted to private companies.

Voluntary workers receive as a maximum wage only the amount of unemployment relief which would ordinarily be paid. In general, the benefits which are normally paid directly to the unemployed person are transmitted to the body acting as the financial backer of the project. It is left to the latter to make use of these funds in any appropriate way. However, the workers' standard of living must be maintained at a level at least as high as would be possible in case he received his benefit in cash. In most cases only a part of the benefit is paid him directly, the other part being used for his board, lodging, clothing or any other personal needs, the actual procedure varying according to the way the service is organized in each case; that is, whether the workers are lodged and given their meals in camps or barracks (in which case only a small allowance is paid them as pocket money) or whether they continue to provide for their own upkeep. The Federal Minister of Labor can authorize the district employment bureau to credit the worker with the difference between the benefit which is paid the backer of the project and the standard wages paid in the respective trade and section of Germany. After a certain amount has accumulated, this credit is transferred to the Federal Book of Debts (*Reichsschuldbuch*), but can be used only for the building of a dwelling house for the worker's own use, or for buying a home site, i. e., a plot of ground with a small house, the whole costing about 2,500 marks (\$595).

In the opinion of the respective authorities, the voluntary labor service is especially suitable for the building of roads which are not absolutely necessary but, nevertheless, of considerable value as a supplement to the existing highway system. Other projects considered suitable for execution under this system have to do with the construction of approaches to newly founded unemployment "settlements." The latter are small colonies for unemployed on the outskirts of the large cities.

Attention must be drawn to the fact that the costs of the service are relatively high in spite of the fact that wages do not have to be paid. It is estimated that each worker costs at least 80 marks (\$19) per month, this amount being accounted for by various items, such as tools, supervision, planning, and insurance charges.

The voluntary service was first legally provided for in June, 1931. The first few months were largely taken up in getting the service

started. Up to the end of January, 1932, about 750 projects have been carried out, but only a very small part of them had anything to do with road work. For instance, in the last quarter of 1931 there were 197 projects begun under this system but only 27 were connected with road building. Trade-unions, as a rule, are in principle opposed to the plan, as tending to develop a sort of compulsory labor service.

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INDUSTRIAL AND LABOR CONDITIONS

Smaller Plant Units as a Means of Stimulating Workers' Interest

IN ORDER that the average worker may have some sense of personal responsibility for his department's success, the subdivision of an industrial enterprise into relatively self-contained units is suggested in an article by H. Dubreuil in the April, 1932, issue of *The Human Factor*, the journal of the National Institute of Industrial Psychology (London). While a modern industrial undertaking is operated on the principle of the subdivision of labor, the outcome of the work—"the real motive force of the whole enterprise—is not subdivided as are the processes of production. For the rank and file the result of their work is represented by a salary, more or less fixed in advance and mostly independent of the profits of the enterprise. Only for a few individuals at the top of the hierarchy is there any exception to this rule; hence the absence among the rank and file of that urge to activity characteristic of those at the head."

Referring to the distribution of profits among employees according to their position in the industrial concern in which they are placed, the writer declares that this apparently obvious remedy for lack of personal interest on the part of the workers has not been successful. In the judgment of this author, the average man is unable to take a long view and consider the success of the enterprise as a whole as necessary to his personal welfare. The same man, however, if he happens to have an opportunity to start some small undertaking of his own, goes into it whole-heartedly without begrudging either labor or time. In the present day the great majority of men can not reasonably hope to establish an individual business. On the other hand, many industrial concerns, even the most up to date, notwithstanding their seeming machinelike set-up and functional interdependence, could readily be divided into more or less self-governing units.

In the same way one could conceive a sort of industrial federation, in which each different "department" might have independent internal activity as long as it harmonized with that of the departments placed in direct relation to it. Even though it is essential that department B should receive its work at a specific time and in a given condition from department A and transfer it in another appointed time and condition to department C, there remains between these two points considerable scope for personal initiative. This is the all-important factor if we wish an industrial concern to be run in the same spirit as an individual enterprise. It is only necessary to budget for each process separately for it to present the essential features of an independent business.

Up to the present time little study has been given to this problem. Such a development, however, seems "to be little more than a logical extension of the processes of subdivision." Industrial employers have for a long time found it necessary to delegate to their subordinates duties which formerly they could have carried on themselves.

It is not unreasonable to visualize that such a process might go on until some functions become comparatively autonomous.

Attention is called in the article to the following question asked by Malcolm C. Rorty, vice president of the International Telephone & Telegraph Corporation, New York, in the April, 1930, number of the Bulletin of the Taylor Society: "To what extent can large groups be organized and managed to realize the abilities, capacities, and energetic efforts of an individual as though he were in a small business of his own?" Although the writer in *The Human Factor* considers that the propounder of this question does not go far enough, suggesting merely a subdivision in which only the chiefs of the various services would be able to act like independent managers, he nevertheless considers Mr. Rorty's study particularly important.

It only remains to extend to the workers the arguments which Mr. Rorty applies to the heads of departments. It is not only among the latter that we find men of independent thought and natural abilities. These are human qualities which are also to be found among the workers, in whom there is even greater danger of their remaining unused. I shall probably be asked if I hope to find posts of responsibility for all those who possess a spark of initiative. But I do not suggest this. I have already mentioned the impossibility of making an interest in the general success of the enterprise penetrate through all ranks, and I have stated the regrettable fact that most men are incapable of long views and that it is necessary to take this myopia into account. It is for this reason that I urge the possibility of subdividing the enterprise so as to reduce the scope of endeavor within the comprehension of the average worker. An ordinary man's outlook can not embrace the firm as a whole, but it may well extend to the limited field of a department.

Dubreuil also cites, as valuable evidence in behalf of the scheme he proposes, the practice which existed in certain French firms of having the workers share in the benefits resulting from the economy of raw material. A report on this system is given in the findings of an investigation published by the Union des Industries métallurgiques et minières. Furthermore, the workers in France have long since organized such groups ("commandites") in some of the industries.

Referring to the suggestion made in the above-mentioned bulletin of the Taylor Society that the head of a department should be given a certain financial independence to enable him to feel the business is his own, Dubreuil declares that if such chief retains the profit of the department for himself there will be no change in the condition or spirit of the workers. If, however, the profits of the department are distributed among all the workers in it according to the value of their respective services, the motives actuating the department head will be extended in a measure to all his personnel. The arguments against profit sharing in a large corporation do not apply to such a plan as is here outlined. A worker who is not able to grasp the financial intricacies of a whole business nor see how he can be affected by its profits or losses may readily comprehend the balance sheet of a single small department. Workers once placed in the position in which they are to some extent sharers in the spirit of the undertaking will no longer need elaborate methods of payment to spur them to more vigorous action. Under this new scheme, Dubreuil contends, the same motives that animate the leaders will be found, though less dominant, among the workers, who will show energy, inventiveness, and all the virile characteristics of the man of independent life, but which are quiescent as soon as he is relegated to a state of subjection.

CHILD LABOR

Migratory Child Workers in New Jersey

IN February, 1931, the New Jersey Commission to Investigate the Employment of Migratory Children in that State submitted the results of its detailed study of migrant children in agricultural labor.¹

At the request of welfare agencies and other bodies interested in improving the conditions of migrant child workers and in supplying educational facilities for them, the commission has prepared a supplement to its report, giving detailed information relative to the loss of schooling.

This supplement, published January, 1932, shows the number of migrant children employed in each county and township, classified as to age, school grade, and the number of actual school days lost during the period of employment. It also shows the number and per cent of boys and girls of all ages who work more than 8 hours per day and 8 or less hours per day, arranged according to occupation.

The commission believes that the State of New Jersey is under obligation to make good the loss in education suffered by migratory children who work in an essential New Jersey industry; that is, agriculture. The heads of migrant families share this view. Pressed by long unemployment and a scarcity of jobs, migrant families are glad to have work on farms during the summer. The work gives them shelter, food, and cash. Cash is used to pay butcher, grocer, coal, clothes, and rent bills accumulated during the winter months of unemployment in Philadelphia and other cities from which the families come. Yet it is remarkable that under such distress the great majority of the heads of families are willing to sacrifice earnings and send their children to school. Our second survey, conducted during the summer of 1931, revealed that out of 146 fathers of families only 22 were not willing to send their children to school while they were on the farms. The reason for this unwillingness was not a lack of understanding of the value of education. Starvation and long suffering was the real cause of their unwillingness. The fathers, happy to have a temporary summer job, try to earn as much as they can, using every available hand of the family in order to have some money to meet the hardships of the coming winter.

As a result of its studies, the commission recommended the enactment of legislation to regulate the employment and to provide schooling of migrant children. It further recommended that the commissioner of labor be given authority to enforce a housing code designed to safeguard the health of the migrant families.

¹ See Labor Review, June, 1931, p. 64.

INSURANCE AND THRIFT PLANS

Investment by Industrial Employees in Building and Loan Associations

A RECENT study by the industrial relations section of Princeton University on the use of building and loan associations in company programs for employee savings and investment discusses these systems from the standpoint of the need for financial security among American workmen. The long-continued period of unemployment through which we are passing has shown the necessity for assisting employees to provide reserves sufficient to meet protracted curtailment or entire loss of earnings. "During the past two decades," the report states, "workmen's compensation and minimum wages have been definitely allocated to the fields of legislation and private initiative, respectively. The next decade will probably see the test whether the financial security of the individual employee can remain outside the field of legislative action. The results of that test, while much influenced by the length of the present depression, are largely in the hands of American employers."

The various company plans for savings and investment, it is stated in the report, have been fairly successful from the employees' standpoint in assisting them to obtain some degree of financial security, while employers have found that such plans have had the tendency to develop individual initiative and responsibility among employees while securing the advantages of cooperative group action.

Company thrift plans are of two general types: (1) Those in which the savings are invested for short terms and are planned, therefore, to provide the means to meet unusual expenses which can not be paid for out of current earnings, and (2) long-term investments, such as are exemplified in building and loan associations, in which the plan provides for systematic saving over a period of years. The possibility of the successful participation by employees in such a plan depends in the main upon a fairly assured income through stable employment. Building and loan associations are well adapted to the needs of employees earning a moderate salary or wage, as payments for association shares may be made in small amounts, which, however, amount to substantial sums when carried out over a long period. Assistance to employees in keeping up their payments is rendered by many companies through pay-roll deductions. The earnings on shares which are automatically credited and compounded on dividend dates in the majority of building and loan associations add materially, over a period of years, to the value of the investment.

A twofold service may be offered to employees by the building and loan association, as it provides opportunity to accumulate a substantial reserve and it makes loans to members for the purchase or construction of homes which may be repaid in small but regular amounts. The association thus assists in the solution of two problems in which the employer has an interest—the promotion of habits of thrift among employees and home ownership.

Even in cases where the company took the initiative in the organization of the building and loan association, membership is ordinarily open to others than the company's employees. This is an advantage, however, since it makes for stability by diversifying the risk and brings increased association business and income. There are several types of building and loan association plans, and those established in connection with individual enterprises follow the same general plans as those of independent associations. All types of associations include, as their basic operation, the sale of shares of the association at a fixed par value, for which the subscribers make regular payments, called "dues." The associations' earnings are derived from membership fees, fines for failure to pay dues on time, and interest on investments, and in some cases from premiums charged on loans.

While the main features of the different plans are similar, the details vary considerably. The plans may be divided into the serial plan, in which stock is issued in series at regular intervals and in which all the dues are pooled and loans made from the common fund; the permanent plan, in which subscriptions to shares may be made at any time and the earnings are credited and accounts kept on an individual basis instead of in series; the Dayton plan, which differs from the permanent plan in the provision for optional payment of dues, no fines or forfeitures, and the introduction of paid-up shares; the permanent capital plan, which provides for issuance of a special type of share, subscribed and paid for by the founders of the association, which guarantees a definite stipulated return upon the regular shares of the association.

The associations, whatever the type of plan, usually sell one or more of the following types of shares: (1) Installment shares, which are paid for in regular installments as in the serial and permanent plans, or varying amounts as in the Dayton plan. (2) Prepaid shares, sometimes called single payment shares, in which the investor pays a lump sum for each share considerably less than its par value and allows the money to remain with the association until the earnings bring it up to its par value. (3) Paid-up or full-paid shares, which were originally shares upon which all payments had been made and which were left with the association; from this developed the sale of shares for a single cash payment, upon which dividends are paid, but commonly at a lower rate than on installment shares. (4) Juvenile shares, which are sold to minors in a large number of States. (5) Guaranty stock or permanent contingent-reserve stock on which no dividends are paid until the stipulated rate is paid on the regular shares.

While the provisions in regard to withdrawal of funds before the end of the investment period vary in the different types of plans, in general there is some limitation on the right of withdrawal either through the practice (authorized by law) of requiring varying periods of notice of the intention to withdraw deposits or through the imposition of a fee or forfeiture of some share of the earnings of the fund. Early withdrawals, therefore, have two principal effects—a loss to the investor and the difficulty which the association may have in paying withdrawal requests during a period of depression. In associations having a large proportion of members exposed to the risks of unemployment, part time, or reduction in wages, the members may need their savings badly, but the associations may be in no

position to meet wholesale withdrawal requests, since their regular income from dues is likely to be greatly reduced.

"Those interested in building and loan associations as a medium for employee savings should recognize the fact," the report states, "that during a time of financial strain dues paid on installment shares may be unavailable for some time. This is not to argue that building and loan associations are not exceedingly safe institutions, but to conclude that they are better suited to the savings needs of those employees who are in a position to make long-term rather than demand deposits."

In conclusion it is stated:

A fundamental service which companies have in their power to render in some degree and which would remove many of the obstacles to long-term investment on the part of their employees is increased stabilization of employment and therefore of earnings. This would produce results far more important than thrift encouragement, but it would greatly aid that, too. It would allow employees who have the courage and will power to put by definite amounts regularly over a period of years to taste the fruits of their labors instead of having to withdraw deposits at a sacrifice to live through unemployment and begin again with everything gone. It would encourage those just reaching the years of their best earning power to consider planned instead of unregulated and haphazard expenditure, since it would hold out to them an assurance of a degree of independence and security as the reward of their efforts.

Amount of Life Insurance in the United States

A REPORT issued recently by the committee on the costs of medical care¹ gives data on the extent of life insurance protection in the United States. The study was undertaken in order to show the extent to which American families are attempting to protect themselves from uncertain financial burdens through the various forms of life insurance and by means of Christmas savings plans.

At the close of 1929, the latest year for which information is available, the report states the face value of policies in force totaled almost \$113,000,000,000, which was approximately three times the total amount carried in all other countries. The premiums collected on these policies by the life insurance companies from their 67,000,000 policyholders amounted to about \$3,500,000,000 or 4 per cent of the national income, while more than \$2,000,000,000 was paid in that year to policyholders and their beneficiaries. In 1926, payments were made on account of the deaths of about 500,000 policyholders, which was about one-third of the total deaths in the United States.

Life insurance is primarily a measure of family protection by means of which the family hopes to bridge over the period of adjustment following the loss of earnings of the holder of the policy. There are many forms of life-insurance policies which combine this basic principle with various provisions covering other contingencies, but in most cases family protection is the basic motive in the purchase of the insurance. The three main types of life insurance policies—ordinary, group, and industrial—in their different variations account for approximately 90 per cent of the total insurance in force. The major part of this insurance is written by commercial "old-line"

¹ Committee on the costs of medical care. The extent and adequacy of life insurance protection in the United States, by Mary Dublin. Washington, 910 Seventeenth Street NW., Jan. 15, 1932.

companies, less than 9 per cent being carried by fraternal and assessment companies.

Ordinary insurance includes term, endowment, and whole-life policies. This type of insurance forms only about 24 per cent of the total number of policies, but the value of the policies amounts to 67 per cent of the total of all policies. Group insurance which provides for blanket coverage of an industrial group, is in force for approximately 5,500,000 workers, and its value amounts to about 9 per cent of the value of all the insurance in force. Industrial insurance is sold in small amounts and the premiums are paid in small weekly or monthly installments. Such policies form 68 per cent of all the policies issued, but their value is only about 16 per cent of the face value of all insurance. All these types of insurance carried by the commercial companies are organized on a legal reserve basis; that is, in conformity with the State laws, which require such companies to maintain an adequate reserve fund at all times. Much of the fraternal insurance, also, is now reorganized on a legal-reserve basis. This insurance amounts to about 8 per cent of the face value of all policies, while assessment insurance constitutes less than 1 per cent.

There is considerable variation in the cost of selling and administering these three types of insurance. Industrial insurance is the most expensive, on account of the many small sums of money which must be handled individually, ordinary insurance is second in cost, and group insurance is the least expensive because of its blanket coverage. Group insurance can not be regarded, however, as a complete substitute for ordinary or industrial insurance, since if an employee loses or leaves his position he must assume the cost of carrying the insurance on an individual basis if the policy is continued. As individual premiums are computed upon the then attained age of the employee, this is often too great a burden to be assumed, particularly by the older employees and by those whose incomes have stopped through the loss of their usual earnings.

The average face value of all types of policies in 1929 was \$1,685, the averages ranging from \$200 for industrial policies to \$2,431 for ordinary policies. These figures, however, have little meaning, since they make no distinction between the policies held by heads of families and those held by children and other dependents, nor do they show the extent to which they are affected by extremely large individual policies. For example, there were included among the policyholders 16,000 persons with policies of \$50,000 and over, of whom 364 were insured for more than \$1,000,000 each. It is evident, therefore, that the average figures are too high to apply to policyholders generally, and an idea of the adequacy of the insurance provisions can be obtained only by ascertaining the amount of insurance purchased by individual families of different income classes.

Few such studies have been made, but one made by the Metropolitan Life Insurance Co. in 1924 covered 11,649 families, averaging 4.6 persons, in which industrial insurance was carried by some member of the family. These families were considered fairly representative of the insured working classes of the country. In this group the average coverage on the head of the family, including nearly 1,400 fathers who carried no insurance, was \$1,276, and excluding the heads of families not carrying insurance the average was \$1,450. Of the total number carrying insurance, 20.9 per cent had less than \$500 of insurance; 37.7

per cent, less than \$1,000; and 88.6 per cent less than \$3,000. Approximately one-third of the insured fathers carried only industrial insurance, amounting to an average coverage of \$485. From these figures it is seen that these families had very small amounts of insurance to substitute for the earnings of the father in the event of his death.

In discussing the adequacy of the insurance carried, as disclosed by the average amounts of policies, the writer quotes Dublin and Lotka in *The Money Value of a Man*, in which they state: "Where the insured is a breadwinner, it is the value of the future income to the family that is lost, and life insurance is intended in a measure to compensate this loss. * * * Under ideal conditions, the amount of the insurance should be equivalent to the value to his family of the man's net future earnings; that is, the sum of money which, invested at current rates of interest, would be sufficient, by the use of part of the principal, as well as the interest each year, to keep his family on the same, or nearly the same, level after his death as it would have been during his normal lifetime. In actual practice it is quite impossible to have such complete coverage." A table computed by the same authors, taking into account the changes in earning power with the passage of time, the relative percentage of persons gainfully occupied, the expectation of life, the cost of the man's own support, and other factors, shows that a normally healthy man of 50 years of age whose annual earnings during his period of greatest earning were \$1,000 should be worth \$5,700 to his family exclusive of his living expenses for the rest of his life. On the same basis a man whose maximum earning capacity was \$1,500 should be worth \$9,900 at the age of 50; one whose earning capacity was \$2,000 should be worth \$13,800, and \$2,500, \$17,450. These figures show how inadequate the insurance protection is in most cases.

Although Christmas savings plans would not appear to have much relationship to investment in life insurance, as a matter of fact very large sums are accumulated in this way, a large part of which is invested in permanent savings or insurance. In December, 1930, 8,000 banking institutions distributed \$632,000,000 to about 11,000,000 members of the Christmas savings clubs, of which it is estimated only 38 per cent was used for Christmas purchases, most of the remainder being used in the payment of debts, taxes, etc., or invested in insurance or savings funds.

In conclusion, the writer compares the amounts invested each year in life insurance or saved through Christmas savings funds, totaling more than \$4,000,000,000, with the payment of approximately \$3,000,000,000 for medical care. The insurance and savings payments are made voluntarily and at regular intervals and it has been suggested, the writer states, that the present complaints about the excessive cost of medical care might be met in a measure by a similar system of regular and orderly payments designed to prepare for the contingencies of sickness.

HEALTH AND INDUSTRIAL HYGIENE

Mortality Experience of International Typographical Union, 1931

By FREDERICK L. HOFFMAN

IN CONTINUATION of the annual reports of the mortality experience of the International Typographical Union, the following statistics for the year 1931 are presented.¹ The average dues-paying membership for 1931 was 77,757, showing a slight increase over the previous year. The total number of deaths during the fiscal year 1931 was 1,193, so that the average official death rate for the year was 1,534.3 per 100,000 against 1,456.6 for the year 1930. The average age at death for the fiscal year 1931 was 59.6 years, which may be compared with 1921, when it was 54.3 years, and 1911, when it was 49.1 years. The range in ages at death during the fiscal year 1931 was from 21 to 92 years.

Table 1, following, gives the membership, the total number of deaths, and the mortality rate per 100,000 members, 1925 to 1931.

TABLE 1.—GENERAL MORTALITY AMONG MEMBERS OF INTERNATIONAL TYPOGRAPHICAL UNION, 1925 TO 1931

| Year | Membership | Deaths | |
|-----------|------------|--------|--------------------------|
| | | Number | Rate per 100,000 members |
| 1925..... | 71,372 | 880 | 1,233.0 |
| 1926..... | 72,704 | 913 | 1,255.8 |
| 1927..... | 74,829 | 1,002 | 1,339.1 |
| 1928..... | 75,738 | 913 | 1,205.5 |
| 1929..... | 76,015 | 1,090 | 1,433.9 |
| 1930..... | 77,507 | 1,129 | 1,456.6 |
| 1931..... | 77,757 | 1,193 | 1,534.3 |

Table 2 shows the mortality from certain specified causes, for each of the years 1925 to 1931.

¹ Data for previous years were presented in Bulletin No. 427, and in Labor Review, issues of July, 1927, April, 1928, March, 1929, May, 1930, and July, 1931.

TABLE 2.—MORTALITY FROM SPECIFIED CAUSES PER 100,000 MEMBERS OF INTERNATIONAL TYPOGRAPHICAL UNION, 1925 TO 1931

| Year | Pulmonary tuberculosis | | Cancer | | Diabetes | | Nephritis | |
|-----------|------------------------|------------------|------------------|------------------|--------------|------------------|--------------------|------------------|
| | Deaths | Rate per 100,000 | Deaths | Rate per 100,000 | Deaths | Rate per 100,000 | Deaths | Rate per 100,000 |
| 1925..... | 87 | 121.9 | 66 | 92.5 | 12 | 16.8 | 56 | 78.5 |
| 1926..... | 87 | 119.7 | 64 | 88.0 | 15 | 20.6 | 33 | 52.3 |
| 1927..... | 56 | 74.8 | 83 | 110.9 | 14 | 18.7 | 47 | 62.8 |
| 1928..... | 74 | 97.7 | 79 | 104.3 | 16 | 21.1 | 38 | 50.2 |
| 1929..... | 90 | 118.4 | 94 | 123.7 | 12 | 15.8 | 46 | 60.5 |
| 1930..... | 79 | 101.9 | 90 | 116.1 | 8 | 10.3 | 44 | 56.8 |
| 1931..... | 82 | 105.5 | 96 | 123.5 | 16 | 20.6 | 43 | 55.3 |
| | | | | | | | | |
| | Pernicious anemia | | Lead poisoning | | Alcoholism | | Cirrhosis of liver | |
| 1926..... | 8 | 11.0 | 2 | 2.8 | 1 | 1.4 | 5 | 6.9 |
| 1927..... | 6 | 8.0 | 2 | 2.7 | | | 8 | 10.7 |
| 1928..... | 7 | 9.2 | 1 | 1.3 | 1 | 1.3 | 5 | 6.6 |
| 1929..... | 3 | 3.9 | | | 1 | 1.3 | 5 | 6.6 |
| 1930..... | 3 | 3.9 | | | | | 8 | 10.3 |
| 1931..... | 5 | 6.4 | | | | | 3 | 3.9 |
| | | | | | | | | |
| | Pneumonia | | Ulcer of stomach | | Appendicitis | | Hernia | |
| 1926..... | 83 | 114.2 | 5 | 6.9 | 15 | 20.6 | 4 | 5.5 |
| 1927..... | 85 | 113.6 | 4 | 5.3 | 9 | 12.0 | 3 | 4.0 |
| 1928..... | 67 | 88.5 | 4 | 5.3 | 12 | 15.8 | 4 | 5.3 |
| 1929..... | 105 | 138.1 | 15 | 19.7 | 14 | 18.4 | 8 | 10.5 |
| 1930..... | 72 | 92.9 | 8 | 10.3 | 11 | 14.2 | 1 | 1.3 |
| 1931..... | 108 | 138.9 | 5 | 6.4 | 10 | 12.9 | 5 | 6.4 |

As the first section of the table shows, pulmonary tuberculosis increased slightly over the previous year, and the same is true for cancer. There was a marked increase in diabetes, from 8 deaths in 1930 to 16 deaths in 1931. Nephritis cases show almost the same mortality as in 1930; compared with 1925, the mortality from this important cause, often held to mask deaths from lead poisoning, is now markedly lower and has been for a number of years.

The number of deaths from pernicious anemia is small and this insidious affection is shown to have been less frequent during the last three years than during the preceding three years. From lead poisoning there were five deaths during the three years 1926 to 1928, as against none during the three years ending with 1931. This must be looked upon as a notable improvement, due unquestionably to the high regard paid to sanitary conditions and ventilation of printing plants throughout the country. A like decline has been observed in the United Kingdom, where there were four deaths from lead poisoning reported to the factory inspection department during 1919 to 1924, as against only two deaths during the five years ending with 1930. There were only 3 deaths from alcoholism during the 6-year period, 2 during the first three years, and 1 during the last half of the period. From cirrhosis of the liver, there were only three deaths in 1931, the lowest on record since 1926.

Pneumonia shows a considerable increase, from 72 deaths in 1930 to 108 deaths during the current year, while ulcers of the stomach declined from 8 to 5. With the exception of 1927, the mortality from

appendicitis was the lowest on record since 1926. The mortality from hernia increased from 1 death in 1930 to 5 deaths in 1931, there having been 14 deaths during the last three years as against 11 deaths during the first three years.

The details of the mortality from certain nervous diseases and diseases of the cardiovascular system are shown in Table 3.

TABLE 3.—MORTALITY FROM SPECIFIED NERVOUS AND CARDIOVASCULAR DISEASES PER 100,000 MEMBERS OF INTERNATIONAL TYPOGRAPHICAL UNION, 1926 TO 1931

| Year | Cerebral hemorrhage | | General paralysis | | Paralysis of the insane | | Angina pectoris | | Other heart disease | | Embolism and thrombosis | |
|-----------|---------------------|------------------|-------------------|------------------|-------------------------|------------------|-----------------|------------------|---------------------|------------------|-------------------------|------------------|
| | Deaths | Rate per 100,000 | Deaths | Rate per 100,000 | Deaths | Rate per 100,000 | Deaths | Rate per 100,000 | Deaths | Rate per 100,000 | Deaths | Rate per 100,000 |
| 1926----- | 47 | 64.6 | 20 | 27.5 | 15 | 20.6 | 25 | 34.4 | 197 | 271.0 | 3 | 4.1 |
| 1927----- | 59 | 78.6 | 53 | 70.8 | 7 | 9.4 | 16 | 21.4 | 164 | 219.2 | 12 | 16.0 |
| 1928----- | 55 | 72.6 | 30 | 39.6 | 3 | 4.0 | 15 | 19.8 | 173 | 228.4 | 8 | 10.6 |
| 1929----- | 85 | 111.8 | 30 | 39.5 | 1 | 1.3 | 17 | 22.4 | 211 | 277.6 | 10 | 13.2 |
| 1930----- | 83 | 107.1 | 36 | 46.4 | 7 | 9.0 | 17 | 21.9 | 221 | 285.1 | 13 | 16.8 |
| 1931----- | 73 | 93.9 | 32 | 41.2 | 4 | 5.1 | 13 | 16.7 | 265 | 340.8 | 22 | 28.0 |

While there was a decline in the mortality rate from cerebral hemorrhage, or apoplexy, the deaths from this cause during the last three years are markedly in excess of the preceding three years. There were no important changes in the mortality from general paralysis and paralysis of the insane, but the deaths during the last three years from paralysis of the insane numbered only 12 as against 25 during 1926 to 1928. Deaths from angina pectoris declined during 1931 to the lowest figure during the six years under review, but deaths from other affections of the heart continued to increase over the earlier years. Deaths from embolism and thrombosis, other than cerebral, show a decided increase, there having been 45 deaths during the last three years compared with 23 deaths during the first three years.

Among other interesting causes of death, attention may be directed to three suicides in 1931 as against three during the preceding five years combined. This increase is also reflected in the general increase in suicide throughout the country during the years under review. There were no deaths from homicide during 1931, as against three during the preceding five years. Automobile accidents caused nine deaths during 1931 and the same number during 1930. Other details are given in the general mortality table compiled in accordance with the rules of the international classification of causes of death.

It is regrettable that the proportion of ill-defined or unknown causes of death should be as large as it is. The deficiency in this respect is about the same from year to year and can only be improved by an effort on the part of the union to ascertain in each and every case the cause of death and the age at death of deceased members. The value of the tabulation, of course, is proportionate to its completeness, but for the time being the figures have to be accepted as they are.

TABLE 4.—NUMBER OF DEATHS OF MEMBERS OF TYPOGRAPHICAL UNION, BY CAUSE AND AGE GROUP, 1931

| Internal- tional list No. | Cause of death | All ages | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 to 44 | 45 to 49 | 50 to 54 | 55 to 59 | 60 to 64 | 65 to 69 | 70 to 74 | 75 to 79 | 80 to 84 | 85 to 89 | 90 and over | Unknown |
|---------------------------------|---|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|---------|
| | | | | | | | | | | | | | | | | | | |
| 11, b | Influenza without pulmonary complications specified | 5 | | 1 | | | | | | 2 | | 2 | | | | | | |
| 23 | Lethargic encephalitis | 1 | | | | | | | | 1 | | | | | | | | |
| 31 | Tuberculosis of the respiratory system | 82 | 1 | 7 | 7 | 12 | 9 | 5 | 10 | 16 | 7 | 8 | | | | | | |
| 34 | Tuberculosis of the vertebral column | 1 | | | 1 | | | | | | | | | | | | | |
| 38 | Syphilis | 2 | | | | | | | | | 1 | 1 | | | | | | |
| 41 | Purulent infection, septicemia | 5 | | | | | | | 1 | 1 | 1 | | 2 | | | | | |
| 43 | Cancer of the buccal cavity | 2 | | | | | | | 1 | 1 | | | | | | | | |
| 44 | Cancer of the stomach, liver | 12 | | | | 1 | | 2 | 1 | 2 | 1 | 2 | 3 | | | | | |
| 45 | Cancer of the peritoneum, intestines, rectum | 1 | | | | | | | 1 | | | | | | | | | |
| 47 | Cancer of the breast | 1 | | | | | | | | | | | 1 | | | | | |
| 49 | Cancer of other or unspecified organs | 85 | | | 2 | 2 | 4 | 7 | 9 | 13 | 15 | 11 | 12 | 6 | 4 | | | |
| 50 | Benign tumors and tumors not returned as malignant | 5 | | | | | | 1 | | 1 | 1 | 1 | 1 | | | | | |
| 51 | Acute rheumatic fever | 2 | | | | | 1 | | | | | | | | 1 | | | |
| 57 | Diabetes mellitis | 16 | | | 1 | | 1 | 1 | 3 | 2 | 4 | 2 | 2 | | | | | |
| 58, a | Pernicious anemia | 6 | | | | | | | | 1 | | 3 | 1 | | | | | 1 |
| 58, b | Other anemias and chlorosis | 3 | | | | | | | | | 2 | 1 | | | | | | |
| 60 | Exophthalmic goiter | 1 | | | | | | | | 1 | | | | | | | | |
| 63 | Diseases of the adrenals | 1 | | | | | 1 | | | | | | | | | | | |
| 65, a | Leukemia | 2 | | | | | | 1 | | | | 1 | | | | | | |
| 65, b | Hodgkin's disease | 1 | 1 | | | | | | | | | | | | | | | |
| 70 | Encephalitis | 3 | | 1 | | | | | 1 | | 1 | | | | | | | |
| 71 | Meningitis | 5 | | | 1 | 1 | 1 | | 1 | | 1 | | | | | | | |
| 72 | Tabes dorsalis (locomotor-ataxia) | 1 | | | | | | | | | 1 | | | | | | | |
| 73 | Other diseases of the spinal cord | 4 | | | | | | | | 1 | | 3 | | | | | | |
| 74, a | Cerebral hemorrhage | 74 | | | | 2 | 1 | 3 | 6 | 11 | 16 | 9 | 17 | 4 | 2 | 2 | | 1 |
| 74, b | Cerebral embolism and thrombosis | 5 | | | | | | | | 3 | | 2 | | | | | | |
| 75, a | Paralysis without specified cause, hemiplegia | 34 | | | 1 | | 1 | | 5 | 5 | 8 | 4 | 4 | 3 | | | 1 | 2 |
| 75, b | Others under this title | 7 | | | | | | 2 | | 1 | 1 | | 3 | | | | | |
| 76 | General paralysis of the insane | 4 | | | | | | | 1 | | 1 | 1 | | 1 | | | | |
| 77 | Other forms of mental alienation | 1 | | | | | | | | | 1 | | | | | | | |
| 82 | Neuralgia and neuritis | 3 | | | | | | | | 1 | | 2 | | | | | | |
| 84 | Other diseases of the nervous system | 4 | | | | | 1 | | | | 1 | 1 | | | | | | 1 |
| 87 | Pericarditis | 1 | | | | | | | | | | | 1 | | | | | |
| 89 | Angina pectoris | 13 | | | | | | | | 1 | 5 | 3 | 1 | 3 | | | | |
| 90 | Other diseases of the heart | 266 | 2 | | 3 | 3 | 8 | 19 | 31 | 40 | 44 | 35 | 45 | 23 | 9 | 2 | 1 | 1 |
| 91, a | Aneurysm | 2 | | | | | | | | 2 | | | | | | | | |
| 91, b | Arteriosclerosis | 47 | | | | 1 | 1 | | 3 | 4 | 7 | 8 | 6 | 10 | 4 | 2 | | 1 |
| 91, c | Other diseases of the arteries | 1 | | | | | | | 1 | | | | | | | | | |
| 92 | Embolism and thrombosis | 22 | | | 1 | | 1 | 2 | 3 | 3 | 3 | 2 | 5 | 2 | | | | |
| 93 | Diseases of the veins | 1 | | | | | | | | 1 | | | | | | | | |
| 94 | Diseases of the lymphatic system | 1 | | | | | | | | | 1 | | | | | | | |
| 95 | Hemorrhage without specified cause | 6 | | | 1 | | | | 1 | 1 | 2 | | 1 | | | | | |
| 96 | Other diseases of the circulatory system | 4 | | | | 1 | | | 1 | | 1 | 1 | | | | | | |
| 99 | Bronchitis | 3 | | | | | | | | | | 1 | | | | | 2 | |
| 100 | Bronchopneumonia | 6 | | | | | | | | | 2 | 1 | | | | | 2 | |
| 101, a | Pneumonia, lobar | 8 | | | | 2 | 1 | 1 | 2 | | | | | | | | | |
| 101, b | Pneumonia, unspecified | 101 | | 3 | 4 | 5 | 9 | 6 | 12 | 15 | 10 | 14 | 12 | 6 | 3 | | 1 | 1 |
| 102 | Pleurisy | 1 | | | | | | | 1 | | | | | | | | | |
| 103 | Congestion and hemorrhagic infarct of the lung | 7 | | | | 1 | | | 1 | | 1 | | 4 | | | | | |
| 105 | Asthma | 3 | | | | | | 1 | | 1 | | | 1 | | | | | |
| 107 | Other diseases of the respiratory system | 2 | | 1 | | | 1 | | | | | | | | | | | |
| 109 | Diseases of the pharynx and tonsils | 1 | | | 1 | | | | | | | | | | | | | |
| 111, a | Ulcer of the stomach | 5 | | | | | | | | 1 | 2 | 2 | | | | | | |
| 112 | Other diseases of the stomach | 7 | | | | | | | | 1 | 2 | 2 | 1 | | | 1 | | |
| 117 | Appendicitis and typhlitis | 10 | | | | | 4 | 1 | | 2 | 1 | | | | 2 | | | |
| 118, a | Hernia | 5 | | | | | | 2 | | | | 1 | 1 | 1 | | | | |
| 118, b | Intestinal obstruction | 6 | | | | | | | 2 | 2 | | 2 | | | | | | |
| 119 | Other diseases of the intestines | 1 | | | | | | | | | 1 | | | | | | | |
| 122, b | Cirrhosis of the liver, not specified as alcoholic | 3 | | | 1 | | | | 1 | | 1 | | | | | | | |
| 123 | Biliary calculi | 2 | | | | | | | 1 | | | | | | | | | 1 |
| 124 | Other diseases of the liver | 2 | | | | | | | | | | 1 | 1 | | | | | |
| 126 | Peritonitis without specified cause | 8 | | 1 | 1 | 1 | 1 | 2 | | 1 | 1 | | | | | | | |
| 128 | Acute nephritis | 1 | | | | | | | | | 1 | | | | | | | |
| 129 | Chronic nephritis | 44 | | | | 1 | 1 | 4 | 4 | 4 | 6 | 8 | 7 | 6 | | 1 | | 2 |
| 131 | Other diseases of the kidneys and annexa | 7 | | | | 1 | | 1 | | 3 | | 1 | 1 | | | | | |
| 133 | Diseases of the bladder | 4 | | | | | | | | | | | 4 | | | | | |
| 135 | Diseases of the prostate | 1 | | | | | | | | | | | | | 1 | | | |
| 151 | Gangrene | 3 | | | | | | | | 1 | | | 1 | 1 | | | | |
| 154 | Other diseases of the skin and annexa | 1 | | | | | | | | 1 | | | | | | | | |

TABLE 4.—NUMBER OF DEATHS OF MEMBERS OF TYPOGRAPHICAL UNION, BY CAUSE AND AGE GROUP, 1931—Continued

| Internal- tional list No. | Cause of death | All ages | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 to 44 | 45 to 49 | 50 to 54 | 55 to 59 | 60 to 64 | 65 to 69 | 70 to 74 | 75 to 79 | 80 to 84 | 85 to 89 | 90 and over | Unknown |
|---------------------------------|---|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|---------|
| 155 | Diseases of the bones..... | 2 | | | | | | | | 1 | | | | 1 | | | | |
| 164 | Senility..... | 14 | | | | | | | | | | | 4 | 2 | 5 | 3 | | |
| 170 | Suicide by firearms..... | 1 | | | | | | | | | 1 | | | | | | | |
| 174 | Other suicides..... | 2 | | | | | 1 | | | | | 1 | | | | | | |
| 179 | Accidental burns..... | 2 | | | | | 1 | | | 1 | | | | | | | | |
| 180 | Accidental mechanical suffocation..... | 1 | | | | | | | 1 | | | | | | | | | |
| 181 | Accidental absorption of irrespirable, irritating, or poisonous gas..... | 2 | | | | | | | | 1 | 1 | | | | | | | |
| 182 | Accidental drowning..... | 3 | | 1 | 1 | | | | | | 1 | | | | | | | |
| 183 | Accidental traumatism by firearms..... | 3 | | | | | | | | | | 2 | | 1 | | | | |
| 188, c | Automobile accidents..... | 10 | | 1 | | 1 | 2 | | 2 | 2 | | | | | | | | |
| 188, d | Airplane and balloon accidents..... | 1 | | | 1 | | | | | | | 1 | | | | | | 1 |
| 194 | Excessive heat..... | 5 | | | 1 | | | 1 | | 2 | | | | | | | | |
| 201 | Fracture (cause not specified)..... | 6 | | | | 1 | | | 2 | 2 | | 1 | | | | | | |
| 202 | Other external violence..... | 27 | 1 | | 4 | 3 | 4 | 1 | 1 | 4 | 5 | 4 | | | | | | |
| 205, a | Cause of death, ill-defined..... | 74 | 1 | 1 | 2 | 2 | 1 | 5 | 1 | 9 | 14 | 16 | 12 | 7 | 2 | | | 1 |
| 205, b | Cause of death, not specified or un- known..... | 55 | | | 2 | 5 | 2 | 6 | 4 | 6 | 11 | 8 | 4 | 4 | 2 | 1 | | |
| | Total..... | 1,193 | 6 | 17 | 36 | 47 | 58 | 74 | 115 | 174 | 191 | 167 | 160 | 85 | 32 | 15 | 3 | 13 |

Cost of Medical Services

AN ARTICLE by Dr. Michael M. Davis in The New England Journal of Medicine, April 14, 1932, discusses the expenditures on the part of the public for physicians' services and for hospitalization.

It has been estimated on the basis of various studies made by the committee on the costs of medical care, of which Doctor Davis is a member, that the total annual expenditure in the United States for the care and prevention of disease amounts to about \$3,250,000,000. But while this figure seems large, it is pointed out by the writer that it amounts to less than 4 per cent of our estimated total annual income.

The complaints from both the public and the medical and allied professions regarding the economic aspects of medical service, Doctor Davis says, are caused not so much by the total amount of all sickness bills as by certain characteristics of these expenditures. The expenditures for sickness, for example, differ in important respects from other items in the family budget, as it is impossible to plan with any degree of certainty for the cost of sickness since no family can tell in advance how much sickness is going to occur and what the requirements are going to be.

An analysis of the expenditure for different types of medical care shows that the amount spent for organized preventive work is less than \$100,000,000, or only \$1 for prevention to nearly \$35 spent for cure. It is considered that a better development of preventive services would materially reduce the total of suffering and of expenditure resulting from disease. Drugs, medicines, and appliances account for from 20 to 25 per cent of the total amount spent, of which approximately \$500,000,000 is spent for worthless or harmful materials. The payments for physicians' services amount to less than 30 per cent of the total, while about 10 per cent more is paid for dentists' services. The bills of physicians and dentists together form the largest single item, but constitute less than half the annual outlay for the care of sickness. The cost of maintenance of hospitals amounting to about \$730,000,000 is met by taxes, income from endowments and current

charitable gifts, and from the payment by individuals for hospital service rendered, the latter payments amounting to about \$350,000,000 annually.

Among the various items of the health bill there is found to be a fairly even distribution of expenditures among families for drugs and medicines but the amounts spent for professional services—doctors, dentists, and nurses—have a very uneven distribution, more than half of such costs being borne by less than 15 per cent of the families. This inequality in expenditure is even greater in respect to the costs of hospitalization. The total charges to paying hospital patients for institutional services, professional fees, and special nursing amount to about \$750,000,000 per year, and this amount falls upon only about 4 per cent of the population. "No family of moderate means," Doctor Davis says, "can tell in advance whether or not one of its members will fall next year, within that unlucky 4 per cent. These face a bill which on the average runs about \$150 for each hospitalized illness and which may run to several times that figure. If a family could only know in advance that this emergency would befall them, they might be able to budget against the expenditure. But sickness is not predictable."

It is said to be a matter of some dispute whether or not hospital charges are too high in relation to the cost of good service but there can be no question that the cost is too high in relation to the ability to pay of a large proportion of the persons who have to incur such expenses each year.

That the costs of hospital care are a burden has been recognized in all countries having well-developed hospital systems. In most European countries the majority of the hospitals are government institutions and the cost of maintenance is in part paid by the general public through taxation, while much of the remainder of the expense is paid from the insurance funds to which generally both workers and employers contribute. Denmark, which has one of the best hospital systems in the world, supports the hospitals almost entirely out of taxes. The largest part of hospital care in Great Britain is also provided by the government, and the famous "voluntary" hospitals of London and other large cities are maintained for the most part by endowments and gifts. In the United States nearly all of the hospitals for mental disease and for tuberculosis are maintained through taxation, as well as about a third of the general hospital beds. Distribution of the expense of hospital care so that it is borne by the community as a whole and does not fall so heavily on the individual, can be obtained therefore, by means of taxation and insurance, in the latter case the individual retaining more direct responsibility.

The cost of hospital care weighs especially heavily on the so-called middle classes—the persons of moderate means who are not willing to receive charity from either government or individuals and who constitute a large proportion of the patients paying for the services they receive from hospitals, physicians, and surgeons. Although the cost of hospitalization falls heavily on the individual who needs extended medical and hospital care, various studies have shown that the average incomes of physicians are not large. Two measures have been proposed which aim at stabilizing and increasing the physicians' income from his paying hospital patients and at the same time assist-

ing persons of moderate means to budget against the expense of hospitalized illness. The first plan, called the "middle-rate plan," is designed to stabilize professional fees and hospital charges so that the patient and his family can learn approximately the total cost of his hospital illness at the time he is admitted. To do this it is necessary for the medical staff of the hospital to reach an agreement with the hospital administration so that professional fees and hospital charges will be handled by the admitting office in accordance with agreed schedules. The second plan, that of hospital insurance, implies the first but goes beyond it by conserving and increasing the patient's paying power. A group of persons paying regularly into a common fund operated on sound insurance principles will always be assured of the means to meet the expenses incidental to hospitalization and the expenses of medical and surgical care.

The middle-rate plan, the writer says, "may help the patient to plan to meet his bill, and the doctor and the hospital to collect their shares. But it does not place in the patient's hands money wherewith to meet it. The application of the insurance principle to the costs of hospitalized illness would be more deep-reaching in its advantages to the patient's budget, and more wide-reaching in the economic groups which might be benefited. Wage earners as well as persons of moderate means might find it within their incomes to insure against hospitalized illness and thus insure definite payment to the physicians and the hospitals. Such insurance must be developed by organized groups. It can not be successfully sold by hospitals or by commercial companies to individuals, for their selling and maintenance costs will be much higher and what is even more important, there will be adverse selection of risks. The more sickly will tend to insure. These difficulties can be avoided if insurance is developed among such groups as the employees of a business establishment, the teachers of a school system, the faculty of a college, or a group of 'civil servants' in a government department. Experimentation in such hospital insurance is desirable. It will be advantageous alike for doctor, hospital, and public to participate in such experiments."

Report of Three Cases of Acute Silicosis

ALTHOUGH the danger of the development of chronic silicosis after long-continued exposure to silica dust has been known for many years, it is only within a very recent period that the hazard of short exposure to dusts containing silica has been recognized. Cases of acute silicosis after comparatively brief exposure or of delayed silicosis, also after a short exposure, have been reported¹ in the past two years in *The Lancet* and the *British Medical Journal* and in the *Journal of the American Medical Association*.

The most recent report² concerns three cases of acute silicosis which developed in a factory manufacturing scouring soaps or powders.

¹ See *Labor Review*, December, 1930, pp. 93-95; July, 1931, p. 99.

² *Journal of the American Medical Association*, Apr. 23, 1932, pp. 1439, 1441: "Acute Silicosis," by Earle M. Chapman, M. D.

The first case reported is that of a young man who was employed in November, 1928, to mix dry silica and soap in an open machine. No protective measures were taken and he worked, therefore, in a very dusty atmosphere. He continued at this work without protection and in the summer of 1930 an irritative dry cough and difficult, labored breathing developed. These symptoms became rapidly worse, and in January, 1931, 26 months after beginning employment in this plant, he was incapacitated for work. An X ray of the chest at that time showed advanced silicosis. The case was reported to the authorities and in March the machines in the plant were condemned and production stopped. Upon admission of the patient to the hospital in October, 1931, tests for the presence of tubercle bacilli were negative but the Roentgenograms showed that the middle four-fifths of both lung fields were obliterated and that only the apexes of the lungs and the portions just above the diaphragm were receiving air. The patient was placed in an oxygen tent to relieve the labored breathing but lived only 18 days after entering the hospital. At autopsy the lungs were found to be about half the normal size, the middle portions of the lungs being shrunken and fibrotic and of almost the hardness of stone. Upon being cut, these parts of the lung were found to be very firm and gritty.

The second case was that of a middle-aged workman who had been employed for 10 years as a foreman in the same plant prior to being placed in charge, in December, 1926, of two new machines used to mix silica and soap. He assisted in the operation of these machines but spent several hours daily in other parts of the plant. Eight months later difficult breathing and a cough developed, which progressed until he was capable of only a limited amount of work. In June, 1930, he was seriously ill with pneumonia, his case requiring a long period of convalescence, and in December, 1931, after contracting an ordinary cold he was admitted to the hospital. No tubercle bacilli were found in the sputum, but an X ray of the chest showed that the upper two-thirds of the right lung were dense and slightly mottled, and that there were also areas of denseness in the left lung. The findings of the examination indicated advanced silicosis. Death occurred about a week after admission to the hospital but an autopsy was not obtained.

The third case, that of a man aged 27, was first seen in November, 1931. This man had worked at the same mixing machines as the other two for about nine months in 1927, and from March, 1928, until the latter part of 1930. During the last year that he worked in the plant he suffered from dyspnea and a cough with mucopurulent sputum which was profuse in damp weather. The clinical examination indicated that the patient had acute silicosis although the X-ray picture failed to establish a positive diagnosis. Hypertrophy of the heart was revealed, however, by the radiograph and this was considered to be due to the increased resistance and loss of elasticity in the pulmonary vascular bed. This finding was important in arriving at a diagnosis of the disease in this patient.

In commenting upon the three cases, Doctor Chapman says that the appearance of respiratory symptoms after 8, 21, and 29 months' exposure to an alkaline dust of high silica content shows a more rapidly severe silicosis than is usual, although a fully developed case of the

disease after 8 months' exposure has been reported in a lens grinder who was exposed to pure quartz dust for this length of time. The rapidly fatal cases of two young girls who were employed in England in packing a similar cleaning powder are also cited.³ The severity of the respiratory symptoms is said to be shown by the marked decrease in the vital capacity in the three cases, in the first of which the loss was greater than is usually seen in cases of uncomplicated cardiac failure.

No determination of the silica content of the dust or soap to which these men were exposed was made, but estimates were made of the silica contents of the lungs in the first case. In comparison with the amounts present in cases of chronic silicosis, the data suggest that the reaction in the lungs is not a direct quantitative one but that the rapid development of fibrosis was the result of the reaction arising from the silica in the presence of the alkaline soap dust. In industries in which there is exposure to silica dust but without the presence of alkaline dust, this reaction progresses slowly in the faintly alkaline fluids of the tissues and may be so prolonged that symptoms do not appear until years after a worker has left a hazardous industry.

³ See Labor Review, December, 1930, pp. 93-95.

INDUSTRIAL ACCIDENTS

Coke-Oven Accidents in the United States, 1930

THE number of workers killed and injured in proportion to the number employed in the coke-oven industry in the United States, was smaller in 1930 than in any other year for which statistics are available, according to a report of the United States Bureau of Mines.¹

The frequency rate for combined fatal and lost-time nonfatal injuries was reduced from 110 per thousand 300-day workers in 1913 to 46 in 1930, a decrease of 58 per cent. The reduction, however, was principally in the nonfatal injury rate, which dropped from 107.73 in 1913 to 44.56 in 1930, while the fatality rate decreased only from 1.97 in 1913 to 1.22 in 1930, when it was higher than in any of the three preceding years.

The actual amount of time lost on account of accidents is not known, but the Bureau of Mines estimates that the 28 deaths and 1,022 nonfatal injuries reported in 1930 represent a loss of 206,950 days, or an average time loss of 197 days. The estimated time lost in 1929 from 22 deaths and 1,329 nonfatal injuries was 183,638 days, an average of 136 days.

There were 2,604 fewer workers employed in the industry in 1930 than in 1929, and there was a decrease of 836,411 in the number of days of labor performed, attributed to industrial conditions prevailing in 1930. A gradual change in production methods is shown by the report. There has for a number of years been a steady decline in the operation of beehive ovens, and a corresponding increase in by-product ovens. The number of workers employed at beehive ovens decreased from 18,570 in 1916 to 2,176 in 1930, and the number of days of labor performed from 5,577,341 to 439,296, while the number of workers employed at by-product ovens increased from 13,033 in 1916 to 17,679 in 1930, and the number of days of labor performed from 4,658,333 to 6,441,599.

During 1930, 48 per cent of all employees at beehive ovens worked at plants where 8 hours was the established workday, 39 per cent where the workday was 9 hours, and less than 2 per cent were employed at 10-hour plants. At by-product ovens 87 per cent of the employees worked an 8-hour shift, 1 per cent a 10-hour shift, and 2 per cent a 12-hour shift.

The main causes of fatal accidents were railway cars, burns, coke cars and motors, and suffocation from gases. The largest number of nonfatal injuries was caused by falls of persons, with burns, handling of objects, hand tools, and falling objects as other principal causes, in the order named.

¹ U. S. Department of Commerce. Bureau of Mines. Technical Paper 508: Coke-oven accidents in the United States during the calendar year 1930, by W. W. Adams and L. Chenoweth. Washington, 1931.

The following table shows the number of employees, days worked, fatalities, and lost-time nonfatal injuries at all coke ovens in the United States, by years, from 1916 to 1930:

NUMBER OF EMPLOYEES, DAYS OF LABOR PERFORMED, FATALITIES, AND LOST TIME NONFATAL INJURIES AT COKE OVENS IN THE UNITED STATES, 1916 TO 1930

| Year | Average days of operation | Men employed | | Days of labor performed | Fatalities | | Nonfatal injuries | |
|--------------|---------------------------|---------------|-------------------------------|-------------------------|------------|---------------------------|-------------------|---------------------------|
| | | Actual number | Equivalent in 300-day workers | | Total | Per 1,000 300-day workers | Total | Per 1,000 300-day workers |
| 1916..... | 324 | 31,603 | 34,119 | 10,235,674 | 45 | 1.32 | 5,237 | 153.49 |
| 1917..... | 329 | 32,417 | 35,595 | 10,678,429 | 76 | 2.14 | 6,713 | 188.59 |
| 1918..... | 329 | 32,380 | 35,476 | 10,642,688 | 73 | 2.06 | 7,792 | 219.64 |
| 1919..... | 289 | 28,741 | 27,674 | 8,302,059 | 53 | 1.92 | 4,031 | 145.66 |
| 1920..... | 319 | 28,139 | 29,921 | 8,976,214 | 49 | 1.64 | 3,415 | 114.13 |
| Average..... | 319 | 30,658 | 32,557 | 9,767,013 | 59 | 1.82 | 5,438 | 167.02 |
| 1921..... | 257 | 16,204 | 13,868 | 4,160,298 | 17 | 1.23 | 1,853 | 133.62 |
| 1922..... | 284 | 19,278 | 18,236 | 5,470,939 | 29 | 1.59 | 1,710 | 93.77 |
| 1923..... | 324 | 23,729 | 25,627 | 7,688,160 | 45 | 1.76 | 2,593 | 101.18 |
| 1924..... | 303 | 20,451 | 20,681 | 6,204,448 | 24 | 1.16 | 1,645 | 79.54 |
| 1925..... | 310 | 23,254 | 24,054 | 7,216,239 | 28 | 1.16 | 1,696 | 70.51 |
| Average..... | 299 | 20,583 | 20,493 | 6,148,017 | 29 | 1.40 | 1,899 | 92.68 |
| 1926..... | 315 | 23,115 | 24,288 | 7,286,605 | 51 | 2.10 | 1,922 | 79.13 |
| 1927..... | 337 | 20,667 | 23,223 | 6,967,035 | 25 | 1.08 | 1,285 | 55.33 |
| 1928..... | 336 | 19,390 | 21,710 | 6,512,929 | 17 | .78 | 1,012 | 46.61 |
| 1929..... | 344 | 22,459 | 25,724 | 7,717,306 | 22 | .86 | 1,329 | 51.66 |
| 1930..... | 347 | 19,855 | 22,936 | 6,880,895 | 28 | 1.22 | 1,022 | 44.56 |
| Average..... | 335 | 21,097 | 23,576 | 7,072,954 | 29 | 1.23 | 1,314 | 55.73 |

Industrial Accidents in New Orleans, 1931

ACCORDING to the report of the Factories Inspection Department of the Parish of Orleans, La., for the calendar year 1931, one out of every 22 workers in the industries of New Orleans was injured during the year. Over 30,000 workers were employed, and 1,351 were injured. The injured consisted of 966 males over 16 years of age, 33 males between the ages of 14 and 16, 346 females over 18 years of age, and 6 females from 16 to 18 years.

The table following shows a summary of the total number of workers employed during the year, the number injured, and the number of days lost as a result of the injuries, in the various industries or businesses.

NUMBER OF WORKERS EMPLOYED IN NEW ORLEANS INDUSTRIES, NUMBER INJURED, AND TIME LOSS FROM INJURIES, 1931

| Industry or business | Number of workers— | | Number of days lost on account of injuries | Industry or business | Number of workers— | | Number of days lost on account of injuries |
|------------------------------|--------------------|--------------|--|----------------------|--------------------|-----------------|--|
| | Em- ployed | In- jured | | | Em- ployed | In- jured | |
| Awnings and shades | 70 | 0 | 0 | Hotels | 1,402 | ¹ 86 | 620 |
| Bags | 684 | 200 | 342 | Ice cream | 108 | 0 | 0 |
| Bakeries and cakes | 1,088 | 44 | 132 | Laundries | 1,592 | 22 | 20 |
| Bottling | 203 | 4 | 60 | Macaroni | 143 | 1 | 0 |
| Boxes | 414 | 21 | 18 | Molasses and sirup | 274 | 28 | 130 |
| Cans | 586 | 25 | 360 | Mops and brooms | 104 | 25 | 26 |
| Candy | 266 | 23 | 55 | Miscellaneous | 45 | 0 | 0 |
| Caskets and coffins | 114 | 16 | 70 | Oil refining | 408 | 22 | 75 |
| Caps and hats | 16 | 0 | 0 | Public service | 3,406 | 200 | 2,111 |
| Cigars | 1,219 | 24 | 137 | Sugar refinery | 973 | 36 | 535 |
| Clothing | 2,287 | 32 | 286 | Perfumes | 46 | 0 | 0 |
| Cotton gins | 77 | 0 | 0 | Printing | 576 | 28 | 58 |
| Cotton mills | 803 | 57 | 601 | Pecans | 383 | 23 | 0 |
| Coffee | 251 | 0 | 0 | Publishers | 626 | 0 | 0 |
| Condiments and food products | 526 | 71 | 101 | Restaurant | 643 | 46 | 56 |
| Dairies | 404 | 74 | 459 | Telephone | 1,377 | 31 | 79 |
| Department stores | 5,153 | 115 | 202 | Theater | 303 | 0 | 0 |
| Drug stores | 1,090 | 25 | 43 | Twine | 292 | 2 | 46 |
| Electrical supplies | 291 | 17 | 118 | Telegraph | 737 | 29 | 228 |
| Furniture and mattress | 372 | 10 | 8 | Umbrellas | 16 | 0 | 0 |
| Furs | 59 | 0 | 0 | | | | |
| Hosiery | 807 | 14 | 79 | Total | 30,234 | 1,351 | 7,055 |

¹ Includes 1 fatality.

Building Construction Accidents in New York City in 1931

ACCIDENT frequency and severity rates in the building construction industry of New York were appreciably reduced during 1931, according to a recent bulletin of the Building Trades Employers' Association of that city.¹

The records for 1931 cover 300 firms in 27 different trade organizations, with 14,136 employees who worked 28,051,058 man-hours. The combined frequency rate for 1931 is 40.99, while the combined frequency rate for all reporting employers in 1930 was 42.50. The combined severity rate for 1931 is 3.03, as against a combined severity rate for all reporting employers in 1930 of 3.82. The entire year's work was completed without a lost-time accident by 163 firms in 26 different groups with 2,237 employees who worked 4,333,742 man-hours.

Table 1 shows the average number of employees in each trade group in 1931, with accident frequency and severity rates for 1929, 1930, and 1931.

¹ Building Trades Employers' Association of the City of New York. Committee on accident prevention. Bulletin No. 13: Industrial accident facts, 1932 edition. New York, 2 Park Avenue, April, 1932.

TABLE 1.—ACCIDENT FREQUENCY AND SEVERITY RATES IN BUILDING CONSTRUCTION IN NEW YORK CITY, 1929, 1930, AND 1931

| Trade group | Average number of employees, 1931 | Frequency rates (per 1,000,000 man-hours' exposure) | | | Severity rates (per 1,000 man-hours' exposure) | | |
|---|-----------------------------------|---|--------|--------|--|-------|-------|
| | | 1929 | 1930 | 1931 | 1929 | 1930 | 1931 |
| Allied Building Metal Industries..... | 1,303 | 35.78 | 38.56 | 32.97 | 0.77 | 2.00 | 2.68 |
| Asbestos Contractors' Association..... | 328 | 64.10 | 55.99 | 56.40 | .54 | 1.29 | .87 |
| Carpenters' Association, Master..... | 365 | 38.03 | 41.69 | 34.87 | 7.16 | 1.28 | 20.88 |
| Cement Workers, Masters' League of..... | 663 | 102.79 | 107.72 | 71.16 | 13.24 | 18.05 | 13.45 |
| Composition Roofers and Waterproofers..... | 154 | 37.69 | 94.03 | 135.69 | .57 | 1.65 | 11.75 |
| Cut Stone Contractors' Association..... | 290 | 30.03 | 18.58 | 32.13 | 1.09 | .22 | 1.22 |
| Elevator Manufacturers' Association..... | 962 | 55.07 | 85.93 | 49.73 | 7.83 | 12.00 | 4.06 |
| General contractors..... | 4,960 | 59.63 | 42.53 | 45.30 | 5.17 | 3.62 | 1.70 |
| Glass Association, The Stained and Leaded..... | 36 | .00 | .00 | .00 | .00 | .00 | .00 |
| Glass Dealers' Association, The Window and Plate..... | 89 | 32.29 | 38.60 | 59.42 | .79 | .85 | 1.20 |
| Heating and Piping Contractors..... | 694 | 22.88 | 12.92 | 43.97 | .58 | .15 | 5.41 |
| Lighting Fixture Manufacturers' Council..... | 101 | 9.20 | 10.73 | 4.24 | .68 | .20 | .00 |
| Marble Industry Employers' Association..... | 730 | 20.02 | 16.64 | 24.62 | .30 | 5.60 | 2.12 |
| Metal Door and Window Association..... | 115 | 35.19 | 5.93 | 16.72 | .32 | .23 | .05 |
| Metallic Furring and Lathing Association..... | 191 | 35.75 | 32.18 | 21.70 | .18 | .51 | .11 |
| Mosaic and Terrazzo Employers' Association..... | 184 | 8.65 | .00 | 2.61 | .18 | .00 | .15 |
| Painters and Decorators, Association of Master..... | 349 | 21.51 | 14.33 | 14.41 | 1.23 | 1.26 | .66 |
| Parquet Flooring Association of Brooklyn..... | 2 | | .00 | .00 | | .00 | .00 |
| Parquet Flooring Association of New York..... | 127 | 5.26 | 5.06 | 4.60 | .14 | .01 | .01 |
| Plasterers' Association, Contracting..... | 479 | 35.83 | 64.48 | 65.37 | 5.00 | 6.35 | 1.44 |
| Plumbers (Division No. 1), Association of Master..... | 607 | 24.53 | 60.70 | 56.50 | .56 | 1.27 | .55 |
| Refrigerator Manufacturers' Association..... | 36 | 13.17 | 11.46 | .00 | .55 | .34 | .00 |
| Rigging Contractors' Association..... | 50 | 12.12 | 27.81 | 21.30 | 1.30 | 4.17 | 2.54 |
| Roofers and Sheet Metal Workers..... | 703 | 37.78 | 40.23 | 17.16 | .90 | 5.89 | 4.74 |
| Stone Setters' Association, Contracting..... | 120 | 31.57 | 149.89 | 64.10 | .60 | 17.08 | 1.07 |
| Tile Contractors' Association..... | 253 | 34.43 | 23.70 | 2.16 | .38 | .58 | .01 |
| Individual members..... | 245 | 43.48 | 55.44 | 29.29 | 3.68 | 2.33 | .48 |
| All groups..... | 14,136 | 42.36 | 42.50 | 40.99 | 3.49 | 3.82 | 3.03 |

Another tabulation shown in the report covers data from 162 firms in 22 different trade groups, which reported for all three years. In 1929 they had 12,174 employees who worked 26,668,391 man-hours; in 1930 their 10,802 employees worked 22,702,835 man-hours; and in 1931 their 7,673 employees worked 15,154,339 man-hours. The combined frequency rate for this group for 1931 is 46.65, as against 47.08 for 1930, a decrease of about 1 per cent. The combined severity rate for 1931 is 3.95, as against 4.82 for 1930, a decrease of 18 per cent. Forty-seven of these firms, in 18 different trade groups (with 2,176 employees who worked 4,182,689 man-hours), completed the 3 years without a lost-time injury.

Data relating to the group of identical establishments are given in Table 2, which shows the average number of employees for 1931, by trade groups, with accident frequency and severity rates for 1929, 1930, and 1931.

TABLE 2.—ACCIDENT FREQUENCY AND SEVERITY RATES IN BUILDING CONSTRUCTION IN NEW YORK CITY, FOR FIRMS REPORTING FOR ALL THREE YEARS, 1929, 1930, AND 1931

| Trade group | Average number of employees, 1931 | Frequency rates (per 1,000,000 man-hours' exposure) | | | Severity rates (per 1,000 man-hours' exposure) | | |
|---|-----------------------------------|---|--------|--------|--|-------|-------|
| | | 1929 | 1930 | 1931 | 1929 | 1930 | 1931 |
| Allied Building Metal Industries..... | 939 | 38.35 | 38.86 | 40.61 | 0.84 | 2.29 | 3.67 |
| Asbestos Contractors' Association..... | 10 | 64.10 | 157.34 | 336.53 | .54 | 3.40 | 9.27 |
| Carpenters' Association, Master..... | 254 | 44.31 | 53.27 | 40.70 | 9.09 | 1.85 | 30.57 |
| Cement Workers, Masters' League of..... | 410 | 111.89 | 114.95 | 88.47 | 13.70 | 14.65 | 19.90 |
| Composition Roofers and Waterproofers..... | 141 | 31.08 | 109.99 | 139.14 | .49 | 1.74 | 13.34 |
| Cut Stone Contractors' Association..... | 283 | 29.20 | 15.59 | 32.94 | 1.09 | .17 | 1.25 |
| Elevator Manufacturers' Association..... | 942 | 55.05 | 83.24 | 50.27 | 7.99 | 12.72 | 4.14 |
| General Contractors..... | 1,969 | 59.53 | 40.27 | 57.26 | 7.24 | 4.44 | 2.41 |
| Glass Association, The Stained and Leaded..... | 24 | .00 | .00 | .00 | .00 | .00 | .00 |
| Heating and Piping Contractors..... | 223 | 30.93 | 19.93 | 31.65 | 1.15 | .21 | .49 |
| Lighting Fixture Manufacturers' Council..... | 101 | .00 | 21.69 | 4.24 | .00 | .03 | .04 |
| Marble Industry Employers' Association..... | 667 | 15.17 | 15.41 | 23.34 | .27 | 6.32 | 2.15 |
| Metallic Furring and Lathing Association..... | 160 | 37.72 | 34.25 | 18.02 | .20 | .54 | .09 |
| Painters and Decorators, Association of Master..... | 177 | 20.57 | 14.36 | 20.49 | .49 | 2.67 | .51 |
| Parquet Flooring Association of New York..... | 9 | .00 | 26.96 | .00 | .00 | .08 | .00 |
| Plasterers' Association, Contracting..... | 268 | 38.84 | 64.58 | 68.76 | 5.84 | .91 | .95 |
| Plumbers (Division No. 1), Association of Master..... | 408 | 18.89 | 45.38 | 59.93 | .31 | .38 | .60 |
| Refrigerator Manufacturers' Association..... | 18 | 13.17 | 28.39 | .00 | .55 | .86 | .06 |
| Rigging Contractors' Association..... | 4 | .00 | .00 | .00 | .00 | .00 | .00 |
| Roofers and Sheet Metal Workers..... | 334 | 29.29 | 47.33 | 24.51 | .58 | .40 | .40 |
| Tile Contractors' Association..... | 134 | 34.43 | 8.63 | 4.66 | .38 | .17 | .03 |
| Individual members..... | 198 | 56.42 | 47.96 | 23.93 | 1.98 | 2.48 | .57 |
| All groups..... | 7,673 | 44.73 | 47.08 | 46.65 | 4.43 | 4.82 | 3.95 |

¹ Average number of employees in 1929, 12,174.² Average number of employees in 1930, 10,802.

The 1,150 injuries to workers in all reporting establishments during 1931 included 8 deaths, 35 cases resulting in permanent disability, and 1,107 in temporary disability. The frequency of injuries shows that 347 cases were caused through handling objects, 187 through falls of persons, 167 through stepping on or striking against objects, 162 through falling objects, 105 through using hand tools, 64 through machinery, 17 through explosives, and 10 through poisonous substances, while the other 91 were due to miscellaneous causes. The greatest severity rate is for falls of persons, which accounted for 45 per cent of the time loss. Handling objects was responsible for 19 per cent, and falling objects for 15 per cent.

Tables in the bulletin show both group and individual comparisons, with complete data on each trade and on each firm reporting. A comparison is also given of compensation awards in New York State for all industries, all construction industries, and building erection and demolition, by years, for the 6-year period 1926 to 1931.

Annual Ohio Safety Congress, 1932

THE fifth annual all-Ohio safety congress was held on April 19, 20, and 21, 1932, at Columbus, Ohio, under the auspices of the Industrial Commission of Ohio. In spite of the drastic reduction in industrial activities, the general attendance was nearly as large as during the previous session in 1931, proving the interest taken in accident prevention. Twenty-five sectional meetings were held by the various industrial groups, in addition to the daily general sessions.

In opening the congress the chairman, Thomas P. Kearns, superintendent of the division of safety and hygiene, emphasized the need of being constantly alert to detect not only the known hazards but the unseen and unexpected dangers. He pointed to the recent tragedy in the Ohio State office building, where 10 lives were lost in an explosion of undetermined origin, although up to the time of the disaster there had not been a major injury in the erection of the building.

Dr. Stephen K. Mahon, of the Toledo Edison Co., told the congress that progress is continually adding new hazards, so that we are to-day dealing with new speed, new power, new and unfamiliar devices, and with a new kind of fatigue, which affects mental alertness and mental judgment, and therefore affects action. He contended that most hazards are preventable, and that new forces of danger, or accident, must be met by new forces of control.

Cyrus S. Ching, director of industrial relations, United States Rubber Co., who addressed the executives' dinner meeting, declared that industrial accidents are a disgrace, and are due to inefficiency in management. He pointed out that accident prevention is often approached from an evangelistic instead of a business standpoint, but that it is a straight business problem involving dollars and cents.

Responsibility for industrial accidents was likewise placed upon the employers by Frank Morrison, secretary, American Federation of Labor, especially those who refuse to adopt up-to-date prevention devices and methods, but he placed some of the blame on State legislatures that refuse to enact compulsory legislation for safety measures. He emphasized that industrial accidents primarily concern the workers, who suffer to a degree for which the benefits of the workmen's compensation laws do not at all compensate.

While the so-called industrial safety was the main subject, part of the time was devoted to the related topics of fire hazards and highway hazards, which also affect both industry and workers strongly. Many able and interesting addresses on both general and special safety problems were delivered at the sectional meetings.

At the closing session of the congress, an urgent and touching plea for safety precautions was presented by Walter E. Darling, a victim of an industrial accident in Ohio which resulted in the loss of his eyesight. A splendid practical demonstration was given of teaching fundamental factors of safety in operating abrasive wheels.

LABOR LAWS AND COURT DECISIONS

Sufficient Evidence Must be Established to Hold Railroad for Liability

EVIDENCE that a brakeman, while running along the side of a train, fell by stepping into a slight depression was held insufficient to establish the railway's liability under the Federal employers' liability act, according to a recent decision of the United States Supreme Court. (*Atchison, Topeka & Santa Fe Railway Co. v. Saxon*, 52 Sup. Ct. 229.)

J. W. Moore, while employed as head brakeman by the Atchison, Topeka & Santa Fe Railway and engaged in interstate commerce, sustained fatal injuries at a railroad station in New Mexico.

The personal representative of Moore filed suit under the Federal employers' liability act and obtained a judgment for damages. Upon appeal by the railroad the court of civil appeals at El Paso reversed the judgment, holding that the evidence failed to show the accident resulted from negligence of the railroad. The Texas Supreme Court reversed this decision, holding that there was enough evidence to show negligence and a causal connection. The case was thereupon appealed to the United States Supreme Court. In delivering the opinion of the court, Mr. Justice McReynolds stated that the case under consideration was of a class in which the court was frequently obliged "to give special consideration to the facts in order to protect interstate carriers against unwarranted judgments and enforce observance of the liability act as here interpreted."

Examination of the record convinces us that the court of civil appeals reached the proper conclusion. We can find no evidence from which it may be properly concluded that Moore's tragic death was the result of negligence by the railway company. As often pointed out, one who claims under the Federal act must in some adequate way establish negligence and causal connection between this and the injury.

The court reviewed the language of the State supreme court and also the facts relative to the accident and said that—

What occasioned this distressing accident can only be surmised. It was necessary to show causal negligence in order to establish the respondent's right to recover. The evidence fails to meet this requirement.

The judgment of the State court was therefore reversed.

Hand-Labor Provision in Public Contract Held Illegal in Utah

RESTRICTIVE provisions as to labor and wages in municipal contracts for the construction of sewers, which increased the cost without enhancing the value, for the purpose of relieving unemployment were held to be void by the Utah Supreme Court as an unlawful diversion of funds and against the public policy of the State. (*Bohn v. Salt Lake City et al.*, 8 Pac. (2d) 591.)

Salt Lake City, in an attempt to relieve the unemployment situation, undertook to construct a system of storm sewers. It was estimated that the improvement would cost about \$600,000; and at a special bond election held in October, 1931, Salt Lake City was authorized to create a bonded indebtedness of \$600,000 for the purpose of making this improvement. In the election this was the sole issue submitted to the voters.

Public bids were received by the city board of commissioners and four separate contracts were awarded for a part of the work. The commissioners inserted in these contracts certain provisions regarding labor and wages and they intended to insert the same provision in the other contracts for the work. Certain citizens and taxpayers began legal action to prevent the insertion of these provisions, which were alleged to be illegal and wasteful. The provisions in question are, in brief, as follows:

The contractors agree (1) so far as possible, there being no substantial and material difference in price to them, that all materials shall be Salt Lake City products and manufacture, and if not procurable in Salt Lake City, then Utah products and manufacture, and if not procurable in Utah, the contractor shall have the right of selection; (2) that all excavating, loading, and back filling shall be done with hand labor, except that teams and tractors may be used for plowing and loosening the materials to be moved; (3) that contractors shall rotate all common labor, and, so far as practicable, all other labor once each week and shall not employ any workmen more than two weeks in any month, nor shall they employ any workman in any month who has had two weeks' work from any source during any given month if there are other men who are unemployed and available. An agency is set up by the commissioners to register all laborers with reference to such desired information, such agency shall not refuse registration to any able-bodied citizen of the United States who has been a bona-fide resident of Salt Lake City for the past year; (4) preference in employment shall be given to citizens of the United States or those having declared their intention to become such, and particularly residents and heads of families of Salt Lake City; (5) eight hours shall constitute a day's labor; (6) that \$3.50 per day shall be paid as a minimum wage.

It was alleged that the cost of the proposed improvement would be increased to the extent of \$55,000 by reason of insertion of the provisions calling for hand labor and for rotation of labor, and that labor could be secured for \$3 per day, although it was shown that substantially all the contractors were paying \$3.50 per day for labor in Salt Lake City.

After reviewing the facts the court considered the object and purpose of the improvement. Mr. Justice Ephraim Hanson, speaking for the court, said: "the direct and primary commitment resting with the city and its commissioners by law is the construction of the storm sewers in order to provide a much-needed public improvement. It should be needless to say that the unemployment situation is something collateral to the object and purpose sought to be accomplished by the construction of the storm sewers." Continuing, he said:

It is not only obvious, but it is specifically admitted, as well, that the very unusual specifications in respect to the employment and rotation of hand labor were inserted in the proposed contracts on the city's instance for the purpose of creating employment. We then have a situation before us where the city and its commissioners, in discharging the obligation resting on them by law to build and construct the proposed storm sewers, are insisting that the unusual and restrictive specifications be made a condition to the proposed contracts, which they frankly admit will enlarge the cost thereof to the extent of \$55,000. It is not urged that this extra expenditure adds anything to the value or to the merit of the work to be accomplished. It is frankly admitted that it does not. The

decision to make this extra expenditure was not the result of any consideration tending to advance or promote the interest of the storm sewers, but was motivated entirely by considerations affecting the unemployment situation.

In considering the city's authority to undertake construction in this manner, the court cited the general law providing for the organization and classification of cities, in which Salt Lake City is given express authority to construct and keep in repair drains and sewers and to regulate their use and construction. These powers, the court agreed, carried with them all implied powers necessary to carry into effect the powers expressly granted. But, the court said, the insertion of these provisions into contracts for public improvement for the sole purpose of alleviating the unemployment situation "carries it far beyond the orbit of the power it is ostensibly asserting," and—

* * * We should be compelled by the admitted facts to say that it was but a thinly veiled effort to do by indirection what can not be done directly. We have no difficulty in coming to the conclusion that there is a plain diversion to the extent of \$55,000 from a fund specifically created by the sale of bonds for the purpose of constructing a system of storm sewers for the purpose of affording employment for the unemployed. This can not meet the sanction of the law.

The minimum-wage provision was likewise challenged. The court cited cases holding that "the power to fix a minimum wage and to prescribe the hours that shall constitute a day's labor are quite generally regarded as an exercise of the police power," but "this power is inherent in the State." Continuing along this line, the court said:

It is, however, contended by way of argument that the city might have done the work without letting it out on competitive bids and could then fix a wage of \$3.50 a day. Assuming, of course, that \$3.50 is a fair wage that might be true, but that is not the case before us. But even so, we do not think it a true analogy to assume that it has the like right to dictate to its contractors the wages they must pay their workmen. In this jurisdiction, inasmuch as municipalities have none of the elements of sovereignty in exerting their given powers, we think the provision in the proposed contracts with respect to the minimum wage must be ruled out.

The provision giving preference in employment to residents and heads of families of Salt Lake City was also declared void as being in conflict with the State statute (Comp. Laws, 1917, sec. 4865) giving preference on public works to United States citizens or those having declared their intention to become citizens. The order preventing the insertion of these provisions into the contracts was therefore allowed.

Justices Straup and Elias Hansen delivered concurring opinions and Mr. Justice Folland delivered a dissenting opinion in which Mr. Chief Justice Cherry concurred. The dissent maintained that, as the State had placed no limitations upon this power of the city, the city could therefore exercise all powers which the State might exercise. He pointed out that—

In its capacity as owner and proprietor the city is not hampered, where there are no statutory or constitutional restrictions, as to the manner or means to be employed in the construction of its public works. The conditions which an employer municipality may impose as to the manner of doing its work involves questions of policy which are within the discretion of the board of commissioners to decide. With respect to questions of policy the courts have nothing to do.

In determining its policy, the dissent contends, the city has the right to consider the welfare of the public even though the conditions imposed do not exclusively promote the efficiency of the work.

After citing cases and arguments in support of this theory, Mr. Justice Folland concludes the dissenting opinion by saying:

I do not pretend to say that the requirement of hand labor instead of machinery in the excavation and back filling for the sewers is ordinarily an economical or sound policy. That is for the board of commissioners to say in the light of the conditions now existing. Society must solve the problems which arise from the use of modern machinery and efficient methods of production, not by discarding such instrumentalities, but by making use of them for the benefit of all. In view of the present emergency, the requirements for rotation of labor and that certain work be done by manual labor were prescribed in the exercise of a sound discretion. In view of this situation, we can not say that the board abused its discretion, or that its action was arbitrary or capricious in any respect whatsoever. * * * The people do not want charity but do desire to support themselves and their families by honest labor. It would be an indictment of our civilization if public officers under such circumstances have no means of meeting the situation and particularly where, as here, the city authorities have proceeded only within the powers granted them by the legislature and are not violating any law enacted to place a limit upon their powers.

WORKMEN'S COMPENSATION

Provisions for "Second Injuries" under Workmen's Compensation Laws

OF THE 44 States which have enacted workmen's compensation laws, all but 5 (Louisiana, New Hampshire, Pennsylvania,¹ Vermont, and West Virginia) have specific provisions regarding the payment of compensation in second-injury cases. The Federal law extending workmen's compensation benefits to longshoremen and harbor workers, and applicable also to private employees in the District of Columbia, provides specially for second injuries. The workmen's compensation laws of the several territories (Alaska, Hawaii, Porto Rico, and the Philippine Islands) do not specifically provide for such cases.

The question of second injuries involves the employment of physically defective workmen. An employee who has lost a member of the body is handicapped, and is usually at a disadvantage in obtaining industrial employment. Among the factors which contribute to this discrimination is the fear among employers that the hiring or the retention of an industrial cripple will increase the cost of accident insurance.

Whenever an employee loses a member of the body, such as an eye, hand, foot, etc., and subsequently loses another member in an industrial accident, he becomes permanently and totally disabled. Employers of labor therefore hesitate to employ an employee previously injured. In order to meet this situation many States have acted to relieve the employer of the extra liability, by the creation, under the compensation law, of a special or "second-injury" fund. Hence, in the case of a second major disability, the employer is liable only for the second injury, yet the employee is compensated for the injury resulting from the combined injuries, the balance of the award being paid from the second-injury fund.

The method of raising revenue to sustain the second-injury fund differs in the several States. One method which appears popular and satisfactory is to place in the fund the amounts awarded in fatal cases in which it has been determined that there is no person under the law entitled to compensation. In Idaho an industrial special indemnity fund is created, supported by an assessment upon both the employer and employee. The Idaho plan was described by Lawrence E. Worstell, chairman of the industrial accident board of that State, as follows:²

The problem of taking care of total-disability cases resulting after a permanent partial disability has been freed from perplexing difficulties in our State, through the enactment of a special statute, by the creation of a special fund known as the industrial special indemnity fund. The State treasurer is the custodian of

¹ The Supreme Court of Pennsylvania, however, in the case of *Lente v. Lucci* (275 Pa. 217, 119 Atl. 132) has held that where a claimant lost one of his eyes before he entered a subsequent employment, was not entitled to compensation for total disability upon the loss of the second eye.

² Paper read at sixteenth annual meeting of International Association of Industrial Accident Boards and Commissions, Buffalo, N. Y., October, 1929. (See Bureau of Labor Statistics Bul. No. 511, pp. 226, 227.)

this fund and all disbursements therefrom are made upon orders of the industrial accident board. The fund is created by assessing the employee 1 per cent of the amount of every specific indemnity award and requiring the employer to pay 1 per cent of the total amount of the specific indemnity award. This fund is to be used in cases where an employee has suffered the loss of a leg, an arm, or an eye, in a previous accident and later has become totally disabled through the loss of the other leg, arm, or eye, as the case may be. This statute was enacted to meet a condition which arose in our State as a result of a decision of our supreme court. A 1-eyed man lost the sight of his remaining eye and the supreme court held that the employer was liable and should assume the liability of a total disability case. This seemed to be an unfair discrimination placed upon the employer or insurance company and made it difficult for partially disabled men to obtain employment. The statute was enacted to permit these unfortunate individuals to obtain employment without penalizing the employer who hires them. Thus, if an employee who has lost an eye in a previous accident should lose the remaining eye, the last employer would be liable for only the loss of the one member. The total disability payments would be taken care of out of the special indemnity fund.

The problem of discrimination against physically handicapped employees is met in some States by permitting an employee to enter into an agreement with the employer by which the former waives any right to compensation for injuries due to any physical disability. Under this plan an employee who is physically defective is given employment which he could not obtain were the employer obliged to assume the second-injury liability. In such cases the employee is unprotected by workmen's compensation. The second-injury fund therefore appears to solve the problem, both by relieving the employer of the added risk, and by compensating the injured employee.

Employers who hire a physically disabled employee are in some States protected against the charging by insurance companies of a higher rate of premium. Self-insured employers, however, are not covered by this provision, and it is readily seen that because of the direct relationship between accidents and costs, the self-insured employer might more readily be guilty of discrimination against the injured employee than the insured employer.

In the following pages are given the principal provisions of the workmen's compensation laws relative to the procedure and method of treating cases of second injuries.

Alabama

CODE, 1923

SECTION 7551. * * * (e) 1. If an employee has a permanent disability or has previously sustained another injury than that in which he received a subsequent permanent injury by accident such as is specified in the sections herein defining permanent injury he shall be entitled to compensation only for the degree of injury that would have resulted from the latter accident if the earlier disability or injury had not existed. * * *

(e) 3. If an employee received an injury for which compensation is payable while he is still receiving or entitled to compensation for a previous injury in the same employment, he shall not at the same time be entitled to compensation for both injuries, unless the latter injury be a permanent injury, such as specified in this section; but he shall be entitled to compensation for that injury and from the time of that injury which will cover the longest period and the largest amount payable under articles 1 and 2 of this chapter.

Arizona

REVISED CODE, 1928

CHAPTER 24, ARTICLE 5

SECTION 1438. * * * (C)—(w) * * * In determining the percentage of disability, consideration shall be given, among other things, to any previous

disability, the occupation of the injured employee, the nature of the physical injury, and the age of the employee at the time of the injury. Where there is a previous disability, as the loss of 1 eye, 1 hand, 1 foot, or any other previous disability, the percentage of disability for a subsequent injury shall be determined by computing the percentage of the entire disability and deducting therefrom the percentage of the previous disability as it existed at the time of the subsequent injury.

California

ACTS OF 1917

CHAPTER 586

SECTION 11 (as amended by Acts of 1931, ch. 1121). * * * (f) The fact that an employee has suffered a previous disability, * * * shall not preclude him from compensation for a later injury, * * * but in determining compensation for the later injury, * * * his average annual earnings shall be fixed at such sum as will reasonably represent his annual earning capacity at the time of the later injury.

Colorado

COMPILED LAWS, 1921

CHAPTER 80

SECTION 4422. The fact that an employee has suffered a previous disability * * * shall not preclude compensation for a later injury or for death; but in determining compensation for the later injury or death his average weekly earnings shall be such sum as will reasonably represent his average weekly earning capacity at the time of the later injury, * * * .

Connecticut

REVISED GENERAL STATUTES, 1930

TITLE 56, CHAPTER 280

SECTION 5236. * * * (f) * * * But an employee who shall have suffered the loss or loss of use of one of the members of his body, or of part of one of the members of his body, or the reduction of vision in one eye to one-tenth or less of normal vision with glasses, shall not receive compensation for a later injury in excess of the compensation allowed for such injury when considered by itself and not in conjunction with the previous incapacity.

Delaware

ACTS OF 1917

CHAPTER 233

3193 j. SECTION 103 (as last amended 1927, ch. 192). If an employee, having previously sustained a permanent injury from any cause whether in line of employment or otherwise, shall sustain any other permanent injury, he shall be entitled to compensation for the subsequent injury in the same amount, and only in the same amount, as though the previous injury had not occurred: *Provided*, That if the subsequent injury shall be sustained in the employment of the same employer and in the course of work of the same classification as the previous injury, then the amount of compensation to which the employee shall be entitled shall be the amount which would be payable if both such injuries were the result of one accident, less an amount equal to the compensation fixed in this act for the previous injury.

3193 nn. SEC. 133. * * * If an employee receives an injury for which compensation is payable, after having received an injury in another employment, he shall be entitled to compensation by the subsequent employer, * * * as if the previous injury had not occurred.

District of Columbia

(See provisions under Federal longshoremen's and harbor workers' compensation act, p. 1338.)

Georgia

ACTS OF 1920

(Page 167)

SECTION 34. If an employee who suffers an injury in his employment has a permanent disability * * * suffered elsewhere, he shall be entitled to compensation only for the degree of incapacity which would have resulted from the later accident if the earlier disability or injury had not existed.

Idaho

COMPILED STATUTES, 1919

CHAPTER 236

SECTION 6234 (a) (added by Acts of 1927, ch. 106). [Created a fund known as special indemnity fund for the payment of second injuries.]

SEC. 6234 (b) (added by Acts of 1927, ch. 106). If an employee who has previously incurred a partial permanent disability * * * receives a personal injury by accident * * * the employer shall only be liable for the permanent partial disability caused by the subsequent injury * * *.

Illinois

REVISED STATUTES, 1931 (SMITH-HURD)

CHAPTER 48

SECTION 145. * * * (e) * * * 18 * * * That any employee who has previously suffered the loss * * * of said members and in a subsequent independent accident loses another * * * the employer for whom the injured employee is working at the time of said last independent accident shall be liable to pay compensation only for the loss or permanent and complete loss of the use of the member occasioned by said last independent accident.

Indiana

ACTS OF 1915

CHAPTER 106

SECTION 33. If an employee has sustained a permanent injury in another employment than that in which he received a subsequent permanent injury by accident, * * * he shall be entitled to compensation for the subsequent injury in the same amount as if the previous injury had not occurred.

Iowa

CODE, 1931

CHAPTER 70

SECTION 1397. * * * 8. In computing the compensation to be paid to any employee who, * * * was disabled and drawing compensation under the provisions of this chapter the compensation for each subsequent injury shall be apportioned according to the proportion of disability caused by the respective injuries which he shall have suffered.

Kansas

ACTS OF 1927

CHAPTER 232

SECTION 10 (as amended by Acts of 1931, ch. 217). * * * (24) If a workman has suffered a previous disability and receives a later injury, * * * then * * * the compensation due said workman shall be the difference between the amount provided in the schedule of this section for his prior injury and the total sum which would be due said employee for such total disability, * * * but in no case less than \$6 per week nor more than \$18 per week.

Kentucky

CARROLL'S STATUTES, 1930

CHAPTER 137

SECTION 4901. If a previously injured employee sustains a subsequent injury which results in a condition to which both injuries or their effects contribute, the employer in whose employment the subsequent injury is sustained shall be liable only for the compensation to which such resulting condition entitled the employee, less all compensation which the provisions of this law would have afforded on account of the prior injury or injuries had they been compensated for thereunder.

Maine

REVISED STATUTES, 1930

CHAPTER 55

SECTION 2. * * * IX. * * * (f) The fact that an employee has suffered a previous injury * * * shall not preclude compensation for a later injury * * * but in determining the compensation for the later injury or death, his "average weekly wages" shall be such sum as will reasonably represent his weekly earning capacity at the time of the later injury * * *.

Maryland

ANNOTATED CODE, 1924

ARTICLE 101

SECTION 43. Should a further accident occur to an employee already receiving payment under this article for a disability * * * his future compensation shall be adjusted according to the other provisions of this article and with regard to the combined effect of his injuries and his past receipt of compensation under this article * * *.

Massachusetts

GENERAL LAWS, 1921

CHAPTER 152

SECTION 37. Whenever an employee who has previously suffered a personal injury * * * incurs further disability * * * by reason of a personal injury for which compensation is required by this chapter, he, or his dependent, if death results from the injury, shall be paid the compensation provided for by sections 31, 32, 34, or 35 in the following manner:

One-half of such compensation shall be paid by the State treasurer, from the fund established by section 65 and the other half by the insurer, but the additional compensation required by section 36 shall be paid by the insurer.

Michigan

COMPILED LAWS, 1929

CHAPTER 150

SECTION 8427. * * * (d) The fact that an employee has suffered a previous disability * * * shall not preclude compensation for the later injury * * * but in determining compensation for the later injury or death his average annual earnings shall be held to be such sum as will reasonably represent his annual earning capacity at the time of the later injury in the employment in which he was working at such time * * *.

Minnesota

GENERAL STATUTES, 1923

CHAPTER 23A

SECTION 4276. If an employee receive an injury, which of itself would only cause permanent partial disability, but which combined with a previous disability does in fact cause permanent total disability the employer shall only be liable for the permanent partial disability caused by the subsequent injury * * *.

Missouri

REVISED STATUTES, 1929

CHAPTER 28

SECTION 3317. (a) All cases of permanent disability where there has been a previous disability shall be compensated on the basis of the average annual earnings at the time of the last injury. * * *

(b) If more than one injury in the same employment causes concurrent temporary disabilities, compensation shall be payable only for the longest and largest paying disability.

(c) If more than one injury in the same employment causes concurrent and consecutive permanent disability, compensation payments for each subsequent disability shall not begin until the end of the compensation period of the prior disability.

Montana

REVISED CODES, POLITICAL CODE, 1921

CHAPTER 213

SECTION 2923. Should a further accident occur to a workman who is already receiving compensation hereunder, * * * his further compensation shall be adjusted according to the other provisions of this act, and with regard to the combined effect of his injuries and his past receipt of compensation.

Nebraska

COMPILED STATUTES, 1929

CHAPTER 48

SECTION 48-128. If an employee receives an injury which of itself would only cause partial disability, but which, combined with a previous disability does in fact cause total disability, the employer shall only be liable as for the partial disability, so far as the subsequent injury is concerned.

Nevada

COMPILED LAWS, 1929

SECTION 2706. * * * 25c * * * (x) Where there is a previous disability * * * the percentage of disability for a subsequent injury shall be determined by computing the percentage of the entire disability and deducting therefrom the percentage of the previous disability as it existed at the time of the subsequent injury.

New Jersey

ACTS OF 1923

CHAPTER 81 (as amended by Acts of 1931, ch. 108)

(Employee in second injury case is paid out of special fund, the difference between compensation paid in total disability cases and that which is paid for the two disabilities separately.)

New Mexico

STATUTES, 1929

CHAPTER 156

SECTION 156-117. * * * 8 * * * (b): * * * *Provided*, That the employer shall not be liable for compensation for total disability if the loss of one arm, foot, leg, or eye occurred prior to such accident, but in that event compensation shall be paid only in accordance with the schedule herein for partial disabilities, * * *.

New York

CAHILL'S CONSOLIDATED LAWS, 1930

CHAPTER 66

SECTION 15. * * * 7. The fact that an employee has suffered previous disability * * * shall not preclude him from compensation for a later injury nor preclude compensation for death resulting therefrom; but in determining compensation for the later injury or death his average weekly wages shall be such sum as will reasonably represent his earning capacity at the time of the later injury: *Provided however*, That an employee who is suffering from a previous disability shall not receive compensation for a later injury in excess of the compensation allowed for such injury when considered by itself and not in conjunction with the previous disability.

North Carolina

PUBLIC LAWS, 1929

CHAPTER 120

SECTION 33. If an employee has a permanent disability or has sustained a permanent injury in service in the Army or Navy of the United States or in another employment other than that in which he received a subsequent permanent injury by accident, * * * he shall be entitled to compensation only for the degree of disability which would have resulted from the later accident if the earlier disability or injury had not existed.

SEC. 34. If an employee receives an injury for which compensation is payable, while he is still receiving or entitled to compensation for a previous injury in the same employment, he shall not at the same time be entitled to compensation for both injuries, unless the later injury be a permanent injury such as specified in section 31; but he shall be entitled to compensation for that injury and from the time of that injury which will cover the longest period and the largest amount payable under this act.

SEC. 35. * * * If an employee has previously incurred permanent partial disability, * * * and by subsequent accident incurs total permanent disability through the loss of another member, the employer's liability is for the subsequent injury only.

North Dakota

COMPILED LAWS, SUPPLEMENT, 1925

CHAPTER 5

SECTION 396a7 (as last amended by Acts of 1931, ch. 312). * * * Whenever a subsequent injury occurs to an employee who has been injured previously in a different employment, the risk of the employer for whom such injured person was working at the time of such subsequent injury shall be charged only with the amount of the awards resulting from such subsequent injury. * * *

Ohio

PAGE'S GENERAL CODE, 1932

TITLE III, CHAPTER 28b

SECTION 1465-69. * * * except when an employee of such employer, who has suffered the loss of a hand * * * prior to the injury for which compensa-

tion is to be paid, and thereafter suffers the loss of any other of said members * * * the compensation to be paid by such employer shall be limited to the disability suffered in the subsequent injury, * * *.

Oklahoma

STATUTES, 1931

CHAPTER 72

SECTION 13356. * * * 6. The fact that an employee has suffered previous disability * * * shall not preclude him from compensation for a later injury; but in determining compensation for the later injury his average weekly wages shall be such sum as will reasonably represent his earning capacity at the time of the later injury.

Oregon

CODE, 1930

CHAPTER 49

SECTION 49-1825. * * * If an employee who has previously incurred permanent partial disability incurs a subsequent permanent partial disability such that the compensation payable for the disability resulting from the combined injuries is greater than the compensation which, except for the preexisting disability would have been payable for the latter injury, the employee shall receive compensation on the basis of the combined injuries, but the charge against the rating of his employer shall be for the latter injury only. * * *

SEC. 49-1827. * * * (h) Should a further accident occur to a workman already receiving a monthly payment under this section for a disability * * * his future compensation shall be adjusted according to the other provisions of this section and with regard to the combined effect of his injuries and his past receipt of money under this act.

Rhode Island

GENERAL LAWS, 1923

CHAPTER 831

(1224) SECTION 13. * * * (d) The fact that an employee has suffered a previous injury * * * shall not preclude compensation for a later injury * * * but in determining the compensation for the later injury * * * his average weekly wages shall be such sum as will reasonably represent his weekly earning capacity at the time of the later injury in the employment in which he was working at such time, * * *.

South Dakota

COMPILED LAWS, 1929

PART 19, CHAPTER 5, ARTICLE 4

SECTION 9461. * * * 8. In computing the compensation to be paid to any employee who before the accident for which he claims compensation was disabled and drawing compensation under the terms of this article, the compensation for each subsequent injury shall be apportioned according to the proportion of incapacity and disability caused by the respective injuries which he may have suffered.

Tennessee

CODE, 1932

TITLE 14, CHAPTER 43

SECTION 6871. If an employee has previously sustained a permanent injury * * * he shall be entitled to compensation only for the disability that would have resulted from the latter accident if the earlier injury had not existed, and such earlier injury shall not be considered in estimating the compensation on the basis of either a total or partial disability to which the employee may be entitled under this chapter.

Texas

REVISED CIVIL STATUTES, 1925

TITLE 130, ARTICLE 8306

SECTION 12c. If an employee who has suffered a previous injury shall suffer a subsequent injury which results in a condition of incapacity to which both injuries or their effects have contributed, the association shall be liable because of such injury only for the compensation to which the subsequent injury would have entitled the injured employee had there been no previous injury.

Utah

COMPILED LAWS, 1917

TITLE 49

SECTION 3140 (as last amended by Acts of 1921, ch. 67). * * * (6) If any employee who has previously incurred permanent partial disability incurs a subsequent permanent partial disability such that the compensation payable for the disability resulting from the combined injuries is greater than the compensation which except for the preexisting disability would have been payable for the latter injury, the employee shall receive compensation on the basis of the combined injuries, but the liability of his employer shall be for the latter injury only and the remainder shall be paid out of the special fund * * *.

Virginia

ACTS OF 1918

CHAPTER 400

SECTION 34. If an employee has a permanent disability or has sustained a permanent injury * * * in another employment other than that in which he received a subsequent permanent injury by accident * * * he shall be entitled to compensation only for the degree of incapacity which would have resulted from the later accident if the earlier disability or injury had not existed.

Washington

REMINGTON'S COMPILED STATUTES, 1910

TITLE 1, CHAPTER 7

SECTION 7679 (as amended by Acts of 1923, ch. 136). * * * (g) Should a further accident occur to a workman who has been previously the recipient of a lump-sum payment under this act, his future compensation shall be adjudged according to the other provisions of this section and with regard to the combined effect of his injuries, and his past receipt of money under this act.

Wisconsin

STATUTES, 1931

CHAPTER 102

SECTION 102.11. * * * (4) The fact that an employee has suffered a previous disability or received compensation therefor shall not preclude compensation for a later injury or for death, but in determining compensation for a later injury or death his average annual earnings shall be such sum as will reasonably represent his average annual earning capacity at the time of the later injury in the employment in which he was working at such time, * * *.

Wyoming

REVISED STATUTES, 1931

CHAPTER 124

SECTION 124-120. * * * (b) * * * Where there has been a previous disability * * * the percentage of disability for a subsequent injury shall be determined by deducting therefrom the percentage of the previous disability, as it existed at the time of the subsequent injury * * *.

United States

SIXTY-NINTH CONGRESS (2d SESS., 1926-27), 44 STAT. 1424

CHAPTER 509 ⁶

SECTION 8. * * * (f) (1) If an employee receive an injury which of itself would only cause permanent partial disability but which, combined with a previous disability, does in fact cause permanent total disability, the employer shall provide compensation only for the disability caused by the subsequent injury: * * *

(2) In all other cases in which, following a previous disability, an employee receives an injury which is not covered by (1) of this subdivision the employer shall provide compensation only for the disability caused by the subsequent injury. In determining compensation for the subsequent injury or for death resulting therefrom, the average weekly wages shall be such sum as will reasonably represent the earning capacity of the employee at the time of the subsequent injury.

Recent Workmen's Compensation Reports

Alberta

THE fourteenth annual report of the Workmen's Compensation Board of the Province of Alberta, covering the experience under the act in the calendar year 1931, shows that during the year reports were received of 10,049 industrial injuries, of which 33 were fatal, while 123 resulted in permanent disability and 9,893 in temporary disability.

There were 3,795 employers under the scope of the act at the end of the year, with a total number of employees estimated by the board at 69,863. Payment of compensation or award of pension was made in 4,878 cases, and payment for medical aid only in 3,065 cases. No compensation was applied for in 107 cases, and in 2,090 cases none was due. Further payments were due in 591 cases, and 738 cases were carried over to the following year, as against 1,420 not disposed of during 1930.

Compensation payments amounted to \$452,643.01, including reserve for outstanding liability on December 31, 1930, of \$163,105; continuing disability benefits (pensions) totaled \$430,129.81; and payments for medical service \$216,211.91. Administration expense, including accident-prevention and mine rescue work, was \$126,360.94.

The report shows rates of assessments for 1932 in the various classifications under the act, pay rolls and estimated number of employees for 1931, and an analysis of injuries reported during 1931. A tabula-

⁶ Applies to longshoremen and harbor workers and private employees in the District of Columbia.

tion, showing causes of the injuries, by extent of disability, is presented as Table 1.

TABLE 1.—CAUSES OF INDUSTRIAL INJURIES REPORTED IN ALBERTA, 1931, BY EXTENT OF DISABILITY

| Cause | Number of injuries | | | |
|--|--------------------|--------------------------------|-------------------------|--------|
| | Resulting in— | | | Total |
| | Death | Perma- nent dis- ability | Temporary disability | |
| Burns and scalds..... | | | 265 | 265 |
| Burst bottles and broken glass..... | | 2 | 124 | 126 |
| Electrical shock and burns..... | 1 | 1 | 21 | 23 |
| Explosions..... | 1 | 3 | 21 | 25 |
| Falling timbers and poles..... | 3 | 1 | 342 | 346 |
| Falling and tripping..... | 5 | 5 | 1,355 | 1,365 |
| Falling rock, coal, and clay..... | 9 | 11 | 824 | 844 |
| Flying and falling objects..... | | 18 | 1,844 | 1,862 |
| Heavy lifting, loading wagons and trucks..... | | | 750 | 750 |
| Infection from handling meat and materials..... | 1 | 3 | 337 | 341 |
| Inhalation of gas fumes..... | 1 | 1 | 67 | 69 |
| Machinery, tools, and equipment..... | 1 | 43 | 1,696 | 1,740 |
| Injured by horse and in runaways..... | | 1 | 156 | 157 |
| Protruding nails and spikes..... | | 1 | 201 | 202 |
| Injuries by automobiles and trucks..... | 2 | | 122 | 124 |
| Industrial disease..... | | | 5 | 5 |
| Splashing of mixtures..... | | 2 | 41 | 43 |
| Run over, struck by, or caught between cars..... | 2 | 5 | 149 | 156 |
| Derailment of mine cars..... | | | 34 | 34 |
| Slivers and splinters..... | | 1 | 179 | 180 |
| Crushed..... | 2 | 16 | 447 | 465 |
| Striking against objects..... | | 2 | 333 | 335 |
| Frostbites..... | | 1 | 19 | 20 |
| Drowned..... | 2 | | | 2 |
| Miscellaneous..... | 3 | 6 | 561 | 570 |
| Total..... | 33 | 123 | 9,893 | 10,049 |

Nova Scotia

THE report of the Workmen's Compensation Board of Nova Scotia for 1931 presents briefly the experience under the workmen's compensation act during its 15 years of existence and during 1931 and an analysis of the accidents compensated in 1930.

The total number of accidents reported to the board in 1931 was 6,775, or 2,743 less than reported in 1929. They consisted of 67 compensable and 4 noncompensable fatal accidents, 204 causing permanent partial disability, 4,290 causing temporary disability for seven days or over, 1,635 medical-aid cases, 259 accidents pending adjustment, and 316 nonfatal noncompensable cases.

It is estimated that the total cost of compensation and of the medical aid furnished by the board for the 1931 accidents is nearly \$1,160,400. The greater portion of medical aid for two of the industrial groups—mining and iron and steel—is provided under medical-aid schemes and consequently is not furnished by the board. The estimated cost does not include administration expense or the cost of the safety associations, almost another \$100,000.

Table 2 shows the number of accidents compensated in 1931, by industry and by extent of disability.

TABLE 2.—NUMBER OF COMPENSATED INDUSTRIAL ACCIDENTS IN NOVA SCOTIA IN 1931, BY INDUSTRY AND EXTENT OF DISABILITY

| Industry class | Cases closed | | | | | Cases partly closed | Total |
|---|--------------|--------------------------------|---------------------------------------|-------------------------------|-------|---------------------|-------|
| | Death | Perma- nent dis- ability | Temporary dis- ability | | Total | | |
| | | | Invol- ving com- pensa- tion | Invol- ving medical aid | | | |
| Mining..... | 28 | 113 | 1,159 | 174 | 1,474 | 262 | 1,736 |
| Lumbering and woodworking..... | 7 | 35 | 626 | 129 | 797 | 160 | 957 |
| Iron and steel..... | 4 | 20 | 176 | 286 | 486 | 37 | 523 |
| Manufacturing and operating not otherwise specified..... | 2 | 11 | 367 | 223 | 603 | 60 | 663 |
| Building and construction..... | 3 | 0 | 150 | 149 | 302 | 45 | 347 |
| Public utilities..... | 2 | 3 | 270 | 185 | 460 | 106 | 566 |
| Transportation..... | 2 | 13 | 436 | 399 | 850 | 148 | 998 |
| Provincial highways department..... | 5 | 3 | 176 | 23 | 207 | 64 | 271 |
| Dominion government employees..... | 2 | 6 | 183 | 37 | 228 | 144 | 372 |
| Nova Scotia Liquor Commission..... | 0 | 0 | 1 | 3 | 4 | 2 | 6 |
| Total..... | 55 | 204 | 3,544 | 1,608 | 5,411 | 1,028 | 6,439 |

¹ Includes 4 fatalities.

COOPERATION

Credit Unions on the Rock Island Lines

AN ARTICLE in the March, 1932, issue of Industrial Relations (Chicago), by the supervisor of personnel of the Rock Island Railroad Co., describes the growth of the credit-union movement among the employees of the company.

The first credit union formed among the Rock Island employees was started in August, 1926. To-day the society has 334 members (out of a total of 450 persons eligible to membership), has made loans aggregating \$95,632, and at the beginning of 1932 had assets of \$18,836, "after paying dividends of 7 per cent regularly each 12 months since its inception."

The writer states that this first organization was regarded with considerable skepticism by the company officials when it was launched.

We were skeptical when we were told that we would find many persons among our employees who could and would operate successfully these cooperative banks; attend to the detail; handle the savings of employees, and with them make loans to employees in need of credit; that we would find members of the groups who could and would, as members of the credit committees, use sound judgment in passing on loans; and that it would be possible for whoever might develop the capacity to do these things to accomplish them in the limited amount of time which they could devote to the purpose. However, the extremely diligent watch which we maintained upon the operation of the credit union, during the first year of its existence on the Rock Island lines, rewarded us with the information that not only could people be found who could and would conduct it successfully but also that the credit union as an institution was very necessary and that it produced results of amazing value.

Several very noticeable effects from the operation of this organization became apparent: Employees seemed more contented and confident, and many who had been borne down under great burdens of debt had been given their first real aid in the direction of financial adjustment and seemed to be becoming buoyant. Garnishments and assignments of wages against employees at that point on our lines steadily diminished. And the great value of the credit union, to the employer and to the employee, quickly came to be generally recognized.

As the success of the primary organization became apparent, other associations were organized and the employees of the Rock Island lines now have 28 credit unions scattered through the States of Arkansas, Illinois, Iowa, Kansas, Missouri, Texas, and Tennessee. These organizations are limited in their membership to the Rock Island employees of the particular locality where the credit union operates. Of a total of 10,620 persons eligible to membership in these 28 credit unions, 4,461, or 42 per cent, have joined.

Their assets at the beginning of 1932 aggregated \$194,402, an increase of 25.2 per cent over 1930. The writer characterizes this as "highly commendable," considering the depression conditions existing

and the lost time suffered by the members. In this connection the article comments as follows:

Any financial institution—whether it be a national or a State bank, a recognized lending concern, a bond house, or a credit union—regards as its most valuable asset the confidence of its depositors. Banks that had weathered many a crisis in the past failed in the last two years probably because they no longer enjoyed this confidence. It is interesting to note that not a single credit union has failed during this period and that all, except for a very few cases, have paid substantial dividends regularly and have increased their assets. This confidence in credit unions by their members has not been forced, and it is not unnatural at all for the members to trust and have confidence in those whom they elect to the management of their credit unions. Members know, constantly, the financial condition of the credit union to which they belong; they appreciate that no favoritism is shown in the matter of making loans; and they know that the loans, always made for provident purposes—purposes that promise to be of real benefit to the borrower—are made at the established and very fair rate of interest of 1 per cent per month on the unpaid balance, without any additional costs or charges, such as investigation fees and the like.

As an illustration of the confidence which the members have in credit unions, we have the credit union which operates among the employees at one of our large shops where work has been on greatly diminished hours for the past two years. In spite of this condition, more than 50 per cent of the eligible employees are members of that credit union—it has 773 members at the present time—and in the year 1931 it made 1,015 loans totaling \$66,351.41, and had assets of \$45,509.70 on December 31. It seems little short of remarkable to us that but \$183.07—which was the unpaid balance on nine small loans—was charged off, as uncollectible, to the guaranty fund at the close of the year.

Data given in the article show that the membership in the 28 credit unions ranged from 28 to 733, and that the average loans made in 1931 ranged from \$24 in the organization at Muscatine, Iowa, to \$107 in Burr Oak, Ill. These societies loaned money to 2,553 members in 1931, in an aggregate amount of \$316,963, and nearly a million dollars has been loaned since 1926. Four associations paid no dividends on the 1931 operations, 2 paid a dividend of 5 per cent, 3 of 6 per cent, 8 of 7 per cent, 1 of 7.4 per cent, 1 of 7.8 per cent, 7 of 8 per cent, and 2 of 10 per cent. Only 7 credit unions reported any losses due to bad debts, the amounts involved ranging from 77 cents to \$183.

The article concludes with the following opinion as to the future of the credit-union movement:

I believe that, as time goes on, the credit union will occupy a broadening field as a national institution, enabling working folks to solve credit problems of their own, with their own money and under their own management, and with any profit resulting from the operation returned to the members of the group. If the credit union accomplishes nothing more than the promotion and development of thrift, this, in my estimation will make it very much worth while. Only somewhere between 7 per cent and 15 per cent of the American people, we are told, have established bank credit, and the credit union addresses itself to the problems of the 85 per cent to 93 per cent who do not have such credit, and who frequently need it to tide them over rough spots in the road. Banks make loans on security considerably in excess of the amount loaned, and as a rule are not greatly concerned with the purpose of the loan. The credit union makes loans with character as the real basis of its security, and for provident purposes, that will be of benefit to the borrower. Further, the prospective borrower must become a member before he can obtain a loan, and he is required to save something while his loan is being repaid. The credit union not only "pulls a fellow out of the hole" but it also fills the hole up after he is out of it. That this position is justified seems borne out by the history of credit unions in their entirety—regular dividends to members, few losses and ever-increasing assets, and never a one that went through involuntary liquidation.

Present Condition of German Cooperative Movement

THE general condition of the German cooperative movement as of January 1, 1932, is discussed in an article in *Cooperative Information* (Geneva), No. 5, 1932.

The article points out that the economic depression which continued through 1931 in Germany, as elsewhere, resulted in "a number of serious crises, particularly in the sphere of banking, and reduced all the previous difficulties experienced by every kind of undertaking to comparative insignificance." The cooperative movement was, naturally, also affected. As to this the article comments:

If the effects of the general economic depression have extended to the cooperative societies also, this is due to their long association with the economic life and struggles of Germany, an association which is all to the honor of the cooperative movement. The economic life of Germany is no longer conceivable without the activities of cooperative societies of all kinds. Proof of this was given by the rapid recovery made by the cooperative societies after the inflation period, and the powers of resistance springing from a sound financial basis shown by the societies when in the middle of last year, at a blow that fell as suddenly as a thunderbolt though not perhaps from a clear sky, the confidence of the whole German people was shaken and the hoarding of money began. Observations made in authoritative quarters and statistical data both agree that even during these difficult months the sections of the population organized in cooperative institutions retained greater equanimity and good sense. On calm consideration their consciousness of the necessity to preserve the undertaking in which they had a share in most cases forced into the background the fear of personal loss.

The serious blows from which even the cooperative societies were not immune arose nearly always out of some universal human weakness. Ambition, backsliding, incompetent management in difficult circumstances came to light here too, since there is no perfection in human works. The report for this year again reveals the existence of a number of questionable undertakings organized on a cooperative basis. Unscrupulous promoters unfortunately can not be entirely eliminated, but wherever irregularities were discovered in time and could be put right, it became clearly evident, and can be stated as a general conclusion, that the central principle of the cooperative movement and the economic form it has retained throughout eight decades are thoroughly sound. The despondency resulting from the economic situation has, however, also affected cooperative societies, and the general instability of conditions has been responsible for the adoption of a waiting attitude in regard to the launching of new cooperative enterprises, while the progress of rationalization, especially in the sphere of agricultural cooperative societies, has severely affected the number of societies in existence and caused a larger number to be dissolved.

Data collected by the German Cooperative Union show that from 1913 to 1929 there were only two years (1926 and 1927) in which the number of new societies formed did not exceed the number of dissolutions. In 1930, however, the number of societies which went out of business exceeded those newly formed by 56, while the excess in 1931 was 476.

Of the total number of societies dissolved in 1931, bankruptcy was the cause in 187 cases. The writer points out in this connection, however, that—

Compared with the total number of bankruptcies in the whole of German industry the fraction represented by the cooperative societies is small. Their figures are far below those for the other forms of industrial undertakings, for which the total is about 13,400 bankruptcies. Similarly, the cooperative societies have a very small share in the total number of compositions with creditors for the whole of industry, with a figure of 80 out of 8,500.

It is pointed out that the credit societies have been particularly hard hit, especially the agricultural credit associations. There has been an extremely active movement for the formation of new societies,

but "this has been accompanied by the spread of a definite movement of an extremely undesirable kind."

In the guise of savings societies for particular purposes, about 25 so-called furnishing, savings, and loan societies have recently sprung up, especially in the west and south of Germany, for the purpose of granting loans without interest for the purchase of furniture, motor cars, pianos, etc. This uneconomic form of thrift is quite unworthy of and prejudicial to the work of the cooperative movement. * * * The practice of advancing loans without interest has also played some part in the formation of equalization funds, which have sprung up in Nortorf, Schleswig, Munich, Stuttgart, Nuremberg, Karlsruhe, and Rendsburg for the purpose of issuing emergency money, and whose activity has been to some extent paralyzed by the authorities. These two new movements share the undesirable practice of advancing money without interest with the somewhat older groups of savings funds for the purchase of particular goods and building and thrift societies. Little has been heard of late of the spread of the former, which were once so widely advertised: On the contrary, such savings funds have been dissolved in 16 places.

Except in the credit branch, agricultural cooperation showed a growth in 1931.

The "miscellaneous" group of societies formed in 1931 cover the most varied fields of activity and include the following: Water-supply societies; societies for the breeding of valuable fur-bearing animals; radio societies; societies for the blind, the cultivation of medicinal herbs, house repairs, note reform; an emergency association of Berlin stockbrokers; a light, water and road-making society; a rifle range society; a society for the sale of German books and writings; an apprentice school for the Leipzig metal industry; home schools; sanatoriums, convalescent homes and old people's homes; a series of motor-transport societies, especially for goods, long-distance and overland transport; a few publishing societies; a silk culture society; an emergency association for securing "productive work and a decent livelihood"; a society for hiring out beach chairs; a bulb culture society; mutual society of stage artists (in Hanover); an association of gatemen, cashiers, and superintendents for exhibitions, sporting events, etc. Especially novel is the "Ask me" Society founded in Berlin, an information society and agency for everything connected with transport, amusement, and intellectual life.

The table following shows the development of certain of the more important types of societies during 1931.

DEVELOPMENT OF SPECIFIED TYPES OF COOPERATIVE SOCIETIES IN GERMANY
IN 1931

| Type of society | Number of societies, Jan. 1, 1931 | Movement during 1931 | | | Number of societies, Jan. 1, 1932 |
|---|--|----------------------------|--------------|------------------------|--|
| | | New societies formed | Dissolutions | | |
| | | | Total | Bank- rupt- cies | |
| Credit societies..... | 22, 160 | 163 | 443 | 58 | 21, 880 |
| Craft societies(raw materials, warehousing, service, delivery)..... | 1, 770 | 48 | 92 | 14 | 1, 726 |
| Workers' productive associations..... | 722 | 14 | 14 | 6 | 722 |
| Dealers' purchasing associations ¹ | 1, 274 | 57 | 35 | 7 | 1, 296 |
| Consumers' societies..... | 1, 727 | 38 | 70 | 7 | 1, 695 |
| Housing societies..... | 4, 065 | 43 | 169 | 21 | 3, 939 |
| Agricultural associations..... | 18, 736 | 631 | 567 | 21 | 18, 800 |

¹ Associations of private retailers for cooperative purchase of goods sold in their business.

Agreement for Settlement of Disputes in Cooperative Employment in Norway

A GENERAL agreement has recently been entered into between the Norwegian Confederation of Trade-Unions and the Norwegian Cooperative Union, providing, among other things, for the peaceful settlement of any disputes between the consumers' cooperative societies and their employees, according to an account in the March 7, 1932, issue of *Industrial and Labor Information*, published by the International Labor Office.

The agreement provides that all collective agreements between cooperative societies and their employees are to be based upon the principle that "conditions of employment in cooperative undertakings are to be at least as favorable as in private undertakings of the same kind and in the same locality."

Wages are to remain, as heretofore, "somewhat higher" in cooperative employment than are paid by private employers in the same line of business, "provided that the position of the cooperative undertaking is such as to make this a reasonable demand."

As to the procedure in cases of industrial disputes between the societies and their employees, the agreement provides as follows:

If agreement is not reached by direct negotiation, there shall be no giving of notice or stoppages of work, but the dispute is to be referred to a committee consisting of two representatives of each party. This committee may put forward proposals for a settlement. If it is unable to do so, or if the parties do not accept the proposal, the matter is to be referred to a board consisting of five members, the parties electing two each, who together choose the fifth. The decision of the board will be binding on the parties.

The Labor "Artel" in Soviet Russia

THE workers' productive societies have attained considerable importance in Russia. Now called "artels" (a term coined from the Tartar words "artak," meaning comradeship, and "artakle," meaning common people), these associations can be traced under different names as far back as the twelfth century. They developed out of the need, in primitive communities, for concerted effort in clearing the land, building shelters, fishing, hunting, cultivating the soil, and even in warfare.

To-day they are found in agriculture, fishery, and in many branches of industry. It may be said, however, that the artels have not been able to undertake, to any marked extent, production on a large scale, i. e., factory production. Their main field is still that of unskilled labor, temporary and seasonal labor, production on a small scale, and handicrafts known in Russian villages as "kustar" industries.

The Russian artel differs fundamentally from the business partnerships which hire outside laborers instead of admitting them to membership or partnership on the basis of equal duties and rights. The artel, as an organization, has no social, political, or revolutionary purposes. It has nothing to do either with politics or with social or economic philosophy. It is a self-employing cooperative organization of wage earners, a collective labor body or force, for the purpose of making collective bargaining directly with employers, or of producing goods, by the labor of the members, directly for the market.

The chief features of the *artel*, namely, close cooperation, collective bargaining, and reduction of middlemen between the wage earners and their employers result, as a rule, in higher earnings for the members of the *artel* than for outside individual wage earners of the same grade engaged in the same kind of work either in open or closed shops.

No member is permitted to accept employment outside of the *artel* unless authorized by the latter. No outside help is hired, except in cases where special skill or technical knowledge, not possessed by the members themselves, is required.

In the Russian *artels* the general meeting of the members (*sobranie*) elects a board of directors and a manager (*stárosta*). The manager looks for opportunities of work, makes contracts, collects money for finished work, and, in fact, directs all activities of the *artel*.

The work contracted for by him is done by the members. They receive from the treasury of their *artel* weekly or monthly allowances for living expenses. A comparatively recent development is the payment of some extra compensation or premium, or bonus, to those members who are especially skillful, or efficient, or who perform hazardous work. But the distribution of net earnings ("dividends," so to speak) is based upon the principle of equality; each member gets an equal share for each equal time or piece unit of labor performed by him in general work for the *artel*. Under the Soviet system the authorities have introduced an individual productivity or piece-rate plan in order to quicken production and lower the cost.

The *artels* in their structure and methods vary from each other considerably, but all represent a number of wage earners more or less closely bound together into one collective body, something like a family, whose membership may grow sometimes into the thousands.

Artels in Imperial Russia

THE Czar's Government was long suspicious of the *artels*, as their close cooperation and equal sharing in labor and profit made them appear to be rather socialistic enterprises. The more developed and prosperous *artels* not only carried on their business enterprise but also provided for the education of their members by organizing and maintaining schools and courses, especially for training in the trade in which the *artel* was engaged, and contributed to the general progress of the nation by increasing the efficiency and upbuilding the character of the members. Even though the *artels*, as such, had nothing to do with the propagation of social philosophies and reforms in a direct way, every member was at liberty to join any philosophical school and any reform movement or political party outside of his *artel*.

Many attempts—all unsuccessful—were made to do away with the *artels*. Close observation revealed that their ultimate aim was merely to improve the living conditions of their own members by common-sense business methods, not by any political or revolutionary action. The failure to close them and the acquisition of more accurate information concerning them changed the attitude of the Czar's Government, so that finally they received recognition by the Government and a standard constitution was worked out for them.

Paragraph 2198 of the constitution enacted and promulgated by the Czar's Government in 1902¹ set forth general requirements to which

¹ Collection of the Laws of the Russian Empire, Vol. X, pt. 1, Civil Laws, Petrograd, 1914, pp. 334-338.

all organizations in this class were required to conform, including equality of voting, absentee voting, distribution of earnings on the basis of labor performed, liability of members, etc.

Artels in Soviet Russia

A LARGE number of the artels existing in former Imperial Russia went to pieces during the World War and especially during the revolutionary struggles and civil wars following in the wake of the war.

At the beginning of its authority the Communist Soviet Government, like the Czar's Government, fought the artels, believing them to be "reactionary, bourgeois exploiters, working for profits and individual benefits of their members." But again the struggle ended with victory for the artels, and they were finally recognized, under certain conditions, by the Soviet Government. They were given various special privileges in regard to taxation and credit, and a uniform constitution for them was issued by the Soviet Government on January 1, 1928, for R. S. F. S. R. (Russia proper).² The Soviet constitution for the artels varies from that of the Czar's Government mainly in the following particulars:

1. The formation of an artel is open only to voters.
2. Contracts undertaken by the artels are limited to jobs on which the value of the material needed for the work does not exceed 10,000 rubles (\$5,150).
3. Contracts are to be carried out by the members only, but the artel may hire outside persons (nonmembers) for tasks which can not be performed by the members, such as office work, bookkeeping, business correspondence, highly technical work, etc.; the number of the hired workers, however, must not exceed 10 per cent of the entire membership of the artel.
4. The management may consist only of persons who have the voting right in R. S. F. S. R. (Russia proper).
5. The artel must meet all labor conditions prescribed by the Soviet labor code. The local labor office supervises the activities of the local artels.
6. Persons desiring to enter an artel are to be selected by a secret vote. They are to serve as candidates no longer than one month. The number of the candidates should not exceed 20 per cent of the number of the members of the artel. The candidates receive the same share of earnings and work under exactly the same conditions as the members themselves.
7. Contributions to social insurance must be made by the artel for its members in the amount of 6 per cent of nine-tenths of the earnings of the artel. However, these contributions may vary to some extent.

Artels in agriculture.—To-day the artels are most numerous in the northern part of European Russia. In that region, owing to the poor fertility of the soil, the peasant has always depended, more or less, upon income from "kustar" or cottage industries. The formation by the Soviet authorities of the so-called "giant" farms out of the peasant communal and individual land holdings has also given a considerable impetus to the development of the artel movement in

² Collection of Laws relating to Industrial Cooperation and Cottage Industries in the U. S. S. R., and in the Separate Republics, State Publication (in Russian), Moscow, 1930, pp. 213-218.

Soviet agriculture, especially on the so-called collective farms³ (*kolkhozy*). The Soviet authorities prefer the artel form of organization of work on the collective farms to that of the partnership or commune; the communist farm is regarded by them as the ideal or final form of production in agriculture, but the artel is considered as a logical preliminary or transitory form of production.

Under the artel form of organization in agriculture, the tools are the property of the artel and do not belong to individual members.

The members of the artel may have their individual dwelling house, possess a little plot of land for a home garden, and small hand tools, and raise small animals, such as goats, chickens, pigs, etc.—in short, they may have their own individual or private household and conduct private housekeeping.

All "kulaks" (rich peasants) and disfranchised persons are excluded from membership in the agricultural artels, as are also those who kill or sell their cattle or dispose of seeds and implements before entering the artel on a collective farm.

The entrance fee of salaried members is set at not to exceed 10 per cent of their yearly salary, and that of farm hands without property at not to exceed 5 rubles (\$2.50). Members who work outside of the artel pay a yearly fee amounting to 3 per cent of their yearly earnings.

The management gives out work to the members, and no one has the right to refuse to accept the work so assigned. The management keeps account of the amount and quality of the work done by each individual member, for the purpose of fixing his wages. Piece work and rates are used to the fullest possible extent.

During the fiscal year allowances in kind and money are made to each member up to 50 per cent of his actual earnings for board and other living expenses. At the end of the year the final settlement of accounts is made.

Fishery artels.—The normal constitution of fishing artels is quite similar to that of agricultural artels in Soviet Russia.

The members of a fishing artel work in groups. When a group delivers the fish to the artel office the latter pays to the group 75 per cent of the actual value of the fish delivered in case of sea fishing and 65 per cent in case of river fishing. Each group divides its proceeds among its members on the basis of a mutual agreement.

Growth of the artel movement.—As the following table shows, both the number and membership of the artels have been growing at a much faster rate than credit, industrial, and agricultural partnerships since 1927.

³ As distinct from the soviet or communist farms, or communes (*sovkhozy*).

GROWTH OF COOPERATIVE PARTNERSHIPS (ARTELS) IN RUSSIA SINCE 1927 AS COMPARED WITH OTHER TYPES OF PARTNERSHIPS ¹

| Type of organization | Number of organizations | | | | |
|---|-------------------------|----------|-------------|-------------------|-------------------|
| | 1927 | 1928 | 1929 | 1930 ² | 1933 ² |
| Partnerships of producers..... | 7, 290 | 12, 053 | 15, 124 | 17, 336 | 26, 107 |
| Artels..... | 233 | 707 | 810 | 1, 688 | 3, 231 |
| Industrial credit partnerships..... | 447 | 664 | 750 | 924 | 1, 162 |
| Mixed industrial and agricultural partnerships..... | 103 | 75 | 43 | ----- | ----- |
| Total..... | 8, 073 | 13, 499 | 16, 727 | 19, 948 | 30, 500 |
| Membership | | | | | |
| Partnerships of producers..... | 427, 560 | 705, 659 | 1, 069, 447 | 1, 678, 089 | 2, 573, 000 |
| Artels..... | 10, 367 | 54, 883 | 113, 532 | 176, 355 | 807, 800 |
| Industrial credit partnerships..... | 144, 669 | 226, 032 | 269, 817 | 353, 040 | 418, 400 |
| Mixed industrial and agricultural partnerships..... | 21, 927 | 12, 445 | 7, 890 | ----- | ----- |
| Total..... | 604, 523 | 999, 019 | 1, 460, 686 | 2, 207, 484 | 3, 799, 200 |

¹ Data are from Soviet Russia, Kooperativnala Shizn', Vsia Kooperatsia U. S. S. R., Moscow, 1930, pp. 339, 400.

² Estimated.

On October 1, 1927, more than half of the members of the artels resided in the villages, being engaged either in agriculture on the collective farms, or in the kustar or cottage industries, producing implements, tools, furniture, utensils, toys, etc.

The year 1931 showed a very considerable growth of artels in Soviet Russia. During the last quarter of that year, in the Ivanovsk district alone there were formed 60 new artels, with a combined membership of about 2,300, for the production of furniture, utensils, baskets, etc.

The Artel as a Means of Self-Help for Unemployed

THE spontaneous appearance of new artels in Soviet Russia has in many instances been connected with the unemployment situation. Looking over histories of individual artels one often finds a statement that this or that artel was originally formed by a group of unemployed workers of the same trade and practically of the same grade of skill.

The Vsia Kooperatsia U. S. S. R. for 1930 gives short histories of a number of artels in Soviet Russia, of which the two following may serve as samples:

The artel, "Proletarii," was founded in 1924 by 32 workers who had gone on strike against their employer, a manufacturer of iron and brass beds in Leningrad. By 1930 the members numbered 300; of these 85 per cent were skilled factory workers, 4 per cent were clerks, 6 per cent were kustari (workers skilled in some cottage industry), and 3 per cent were peasants direct from the villages. In the same year the artel produced iron and brass beds to the total value of 2,020,000 rubles (\$1,010,000).

In 1928 an industrial artel, called "Krasnyi Rabochii," was founded by a number of unemployed skilled workers in Leningrad for the production of various small mechanical devices and accessories, such as those of automobiles, tractors, sewing machines, textile machines,

etc. At the end of the first year it had a membership of 50, mostly skilled workers. Its product during 1929-30 was valued at 900,000 rubles (about \$450,000). The average monthly earnings per worker were about 160 rubles (\$80) and the average production value per worker per month amounted to about 400 rubles (\$200). This artel does not use hired, that is, outside labor, at all. During the first three years it trained 12 skilled workers for various occupations, and the same number were in training in 1929-30.

In the Russian boundary countries, especially in the Baltic States, there is an extensive development of the artels. In 1931 there were 40 artels in operation in Estonia, and practically all harbor work, such as loading and unloading, was done by them.

There is a movement on foot in these States to utilize the artel form of labor cooperation as a means of self-help for the unemployed workers. Help for securing contracts, expert advice, and credit are to be extended to these artels of unemployed workers by the public.

This idea is susceptible of adoption, with some modification, in other countries, including the United States. Thus a number of casual laborers, including odd job men, could organize a cooperative labor association. The organization would select officials and open an office. This office would solicit business (work) for the organization and make contracts with house owners and other employers for various odd jobs, such as mopping floors, cleaning windows, beating carpets, cleaning sidewalks and back yards, etc. The members of the organization would be sent out by their office to do the jobs, and the office would collect the pay for work done, paying off the members who did the jobs, and retaining a certain sum, part for office expenses, and part for a reserve fund. If, after a certain period of time, the sum of money retained reached a specified amount, it would be divided among the members of the organization on whatever basis had been chosen. Such an organization might be formed among the unemployed workers of any other trade, occupation, or degree of skill, for instance, accountants, stenographers, stage artists, and others.

LABOR AGREEMENTS, AWARDS, AND DECISIONS

Agreement in the Millinery Industry of New York City

ON MARCH 1, 1932, a 2-year agreement was entered into between the Women's Headgear Group (Inc.), New York City, and the Cloth Hat, Cap, and Millinery Workers' Union. This is the first agreement in which the union has dealt with the employers collectively, only individual agreements having been made previously.

Elimination of contract shops, for many years a source of trouble and disorganization in the hat, cap, and millinery industry, is provided for. The agreement establishes a 40-hour, 5-day week, and a minimum wage scale of from \$35 to \$75 a week, and provides for a strictly union shop. Time and one-half is to be paid for overtime, but overtime is to be permitted only when all members are employed full time, or when all available seats or benches are fully occupied. Week workers are to have seven holidays, with pay.

The agreement also provides for an adjustment board, with an impartial chairman, to which all disputes not settled by direct negotiations shall be referred. It is also provided that "Each party to this agreement shall have the right to call upon the other to designate a special committee to confer upon matters of mutual concern, including the question of establishing an unemployment fund for the workers in the millinery industry."

Recent Decisions of Colorado Industrial Commission

Bakery Workers—Denver, Colo.

ON APRIL 1, 1932, the managers of six baking companies of Denver presented to the Industrial Commission of Colorado a copy of their contract with Bakery and Confectionery Workers' Union No. 26, which was to expire May 1, 1932; also a copy of a proposed new contract containing a wage scale 20 per cent lower than the scale of the expiring contract, the new contract to be effective May 1, 1932.

On April 5, 1932, the representative of the bakery workers' union filed an objection to the proposed new contract and the new wage scale.

The employers contended that business conditions made it necessary to reduce the wages of their employees; and that they could not meet the competition of the chain-store bakeries if they continued to pay the present scale. They also pointed out that the cost of living has decreased since the scale was established.

The employees contended that the wage paid in Denver was from \$6 to \$10 per week less than that paid to union bakers in other cities of the size of Denver; that 20 per cent of the bakers in Denver were out of employment; that the chain-store bakeries were paying the union scale and that there was no reason why the independent bakeries could not do the same. The employees offered to accept a 5-day week, pointing out that under such a plan more bakers could be put to work; it would, therefore, help to relieve the unemployment situation. It was their belief, however, that by this sacrifice of one day's work and one day's pay the bakers would be doing their part to relieve unemployment conditions.

The decision of the industrial commission, rendered April 20, 1932, was that the wage scale should remain unchanged, and that the expiring contract with the union should be renewed for another year.

Building Trades—Pueblo

THE Pueblo General Contractors' Association and 13 other building-trades employers served notice on the Industrial Commission of Colorado of their intention to reduce the wages of their employees, in accordance with a schedule submitted in their notices. Among the trades involved were the plasterers, cement finishers, carpenters and joiners, painters, decorators and paperhangers, and bricklayers and masons.

The respective unions in these trades filed a protest against the proposed reductions, claiming that the amounts of reduction were too large, were not justified at this time, and should not be approved.

After a member of the commission had endeavored to effect a settlement between the parties, and had failed, the commission held a hearing on April 18, 1932. The painters' union, by mutual consent of parties to the dispute, withdrew before the hearing was held.

The employers contended that it was necessary to reduce the wages of their employees in the hope that the decrease would stimulate building and that as a result employment would be increased; that it is necessary to reduce the present high cost of labor in conformity with the reduction already made in building materials and contractors' profits; that a reduction in wages is not inconsistent with the reduced cost of living; that the proposed reduction is not inconsistent with the wage paid throughout the country, and that it is an honest attempt to meet economic conditions as they at present exist and is in a measure conducive to the benefit of those to whom it applies.

The employees contended that the amount of the reduction proposed by the employers is not justified; that a reduction of any kind would not stimulate building, and from the experience in other cities, would not increase employment; that when the number of days worked under the present scale is considered they do not receive a living wage according to the American standard of living, and that reductions in wages destroy the purchasing power of the people and will in a large measure delay the return of better times; that depressions can not and never will be cured by reducing wages.

The decision and award of the commission, rendered April 25, 1932, was that the following wages be paid for an 8-hour day. Carpenters, \$8; bricklayers, \$10.50; plasterers, \$10.50; lathers, \$8; cement finishers, \$9; and bricklayers' tenders and plasterers' tenders, 75 cents per hour.

INDUSTRIAL DISPUTES

Review of Industrial Disputes in the United States from 1916 to 1931

Summary

WITH the exception of the year 1929, the year 1931 had the greatest number of strikes since 1926, there having been 894 reported for 1931 as against 903 for the year 1929 and 1,035 in 1926. The relative number of disputes and the relative number of workers involved for each year, 1916 to 1931, are shown in Table 1.

TABLE 1.—RELATIVE NUMBER OF DISPUTES AND OF EMPLOYEES INVOLVED, 1916 TO 1931

| Year | Relative number of— | | Year | Relative number of— | |
|-----------|---------------------|-----------|-----------|---------------------|-----------|
| | Disputes | Employees | | Disputes | Employees |
| 1916..... | 100 | 100 | 1924..... | 33 | 41 |
| 1917..... | 117 | 77 | 1925..... | 34 | 27 |
| 1918..... | 88 | 78 | 1926..... | 27 | 21 |
| 1919..... | 96 | 260 | 1927..... | 19 | 22 |
| 1920..... | 90 | 91 | 1928..... | 17 | 22 |
| 1921..... | 63 | 69 | 1929..... | 24 | 15 |
| 1922..... | 29 | 101 | 1930..... | 17 | 10 |
| 1923..... | 41 | 47 | 1931..... | 24 | 17 |

From the standpoint of the number of workers involved, by industry, there was little change in 1931 from the year 1930 with the exception of coal mining, where more than double the number of workers were on strike, and in textiles, where the figure reached five times the number of 1930.

Disputes continue to involve principally questions of wages, hours of employment, or recognition of the union.

Results of settlement of strikes in favor of employers is higher for 1931, being 47 per cent as against 44 per cent in 1930 and 40 per cent in 1929. The number of strikes in which a compromise settlement was effected in 1931 was 21 per cent as against 24 per cent in 1930 and 25 per cent in 1929.

Forty-five per cent of all strikes ending in 1931 were settled within 6 days and 67 per cent within 14 days. (See Table 19.)

Month of Occurrence

TABLE 2 shows the number of disputes beginning in each month and the number in effect at the end of each month together with the total number of workers and the man-days' loss involved from the jobs where the strikes occurred. No attempt is made to allow for time that employees may have worked on other jobs.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN, AND IN EFFECT AT END OF, EACH MONTH IN 1931

| Month | Number of disputes | | Number of workers involved in disputes | | Number of man-days lost during month |
|----------------|--------------------|---------------------------|--|---------------------------|--------------------------------------|
| | Beginning in month | In effect at end of month | Beginning in month | In effect at end of month | |
| January..... | 57 | 19 | 10,150 | 2,905 | 181,100 |
| February..... | 52 | 29 | 20,473 | 10,677 | 223,600 |
| March..... | 49 | 26 | 20,453 | 28,012 | 476,904 |
| April..... | 73 | 39 | 27,135 | 22,687 | 770,512 |
| May..... | 115 | 46 | 28,000 | 15,603 | 400,500 |
| June..... | 90 | 47 | 18,795 | 15,223 | 511,926 |
| July..... | 73 | 51 | 49,434 | 56,683 | 612,864 |
| August..... | 79 | 36 | 11,019 | 14,759 | 1,157,003 |
| September..... | 117 | 65 | 36,092 | 37,427 | 493,649 |
| October..... | 77 | 45 | 34,384 | 29,380 | 1,052,066 |
| November..... | 62 | 39 | 13,219 | 13,690 | 355,818 |
| December..... | 50 | 21 | 4,145 | 1,318 | 150,064 |

Table 3 gives the number of strikes beginning in each month for the years 1916 to 1931. The usual period of unrest falls within the months of April, May, and June. However, in the year 1931 the month of September showed greater strike activity than any other month.

TABLE 3.—NUMBER OF DISPUTES BEGINNING IN EACH MONTH

| Year | Number of disputes beginning in— | | | | | | | | | | | | | Total |
|-----------|----------------------------------|------|------|------|-----|------|------|------|-------|------|------|------|------------------|-------|
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Month not stated | |
| 1916..... | 188 | 206 | 204 | 434 | 617 | 354 | 313 | 326 | 252 | 261 | 197 | 149 | 198 | 3,789 |
| 1917..... | 288 | 211 | 318 | 445 | 463 | 323 | 448 | 360 | 349 | 322 | 257 | 197 | 469 | 4,450 |
| 1918..... | 191 | 223 | 312 | 321 | 392 | 296 | 288 | 278 | 212 | 145 | 208 | 250 | 237 | 3,353 |
| 1919..... | 199 | 198 | 192 | 270 | 431 | 322 | 381 | 417 | 425 | 334 | 165 | 140 | 156 | 3,630 |
| 1920..... | 280 | 214 | 288 | 427 | 422 | 317 | 298 | 264 | 231 | 192 | 106 | 108 | 264 | 3,411 |
| 1921..... | 238 | 172 | 194 | 292 | 575 | 152 | 167 | 143 | 124 | 90 | 92 | 76 | 70 | 2,385 |
| 1922..... | 131 | 96 | 75 | 109 | 104 | 64 | 101 | 95 | 85 | 64 | 64 | 43 | 81 | 1,112 |
| 1923..... | 69 | 72 | 123 | 212 | 246 | 133 | 146 | 106 | 93 | 117 | 66 | 59 | 111 | 1,553 |
| 1924..... | 102 | 70 | 118 | 144 | 155 | 98 | 89 | 81 | 71 | 74 | 61 | 40 | 146 | 1,249 |
| 1925..... | 94 | 89 | 83 | 161 | 161 | 108 | 103 | 123 | 104 | 77 | 63 | 45 | 90 | 1,301 |
| 1926..... | 62 | 74 | 84 | 127 | 141 | 73 | 84 | 98 | 85 | 60 | 48 | 33 | 66 | 1,035 |
| 1927..... | 37 | 65 | 74 | 87 | 107 | 80 | 65 | 57 | 57 | 50 | 27 | 28 | ----- | 734 |
| 1928..... | 48 | 52 | 41 | 71 | 80 | 44 | 54 | 59 | 52 | 61 | 44 | 23 | ----- | 629 |
| 1929..... | 48 | 54 | 77 | 117 | 115 | 73 | 80 | 78 | 98 | 69 | 61 | 33 | ----- | 903 |
| 1930..... | 45 | 52 | 49 | 64 | 66 | 59 | 78 | 51 | 72 | 47 | 44 | 26 | ----- | 653 |
| 1931..... | 57 | 52 | 49 | 73 | 115 | 90 | 73 | 79 | 117 | 77 | 62 | 50 | ----- | 894 |

Place of Occurrence of Disputes

IN TABLE 4 is shown the number of disputes by States and geographical groups for the 16-year period, 1916 to 1931. The table shows that 715, or 80 per cent of the strikes of 1931 occurred in the group of States lying north of the Ohio River and east of the Mississippi River and that nearly 60 per cent occurred in the States of New York, Pennsylvania, New Jersey, and Massachusetts.

TABLE 4.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY STATE AND SECTION OF COUNTRY

| State and section | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Alabama..... | 15 | 20 | 13 | 18 | 25 | 15 | 4 | 6 | ----- | 3 | 5 | 1 | ----- | 1 | 1 | 1 |
| Alaska..... | 3 | 5 | 3 | 3 | 1 | 1 | ----- | ----- | ----- | 2 | ----- | ----- | ----- | ----- | ----- | ----- |
| Arizona..... | 7 | 20 | 4 | 7 | 9 | 4 | 1 | 1 | ----- | ----- | 1 | ----- | 3 | ----- | ----- | 2 |
| Arkansas..... | 20 | 36 | 11 | 7 | 15 | 7 | 2 | 2 | 3 | 4 | ----- | ----- | 1 | 2 | 1 | 2 |
| California..... | 55 | 112 | 94 | 102 | 120 | 99 | 37 | 47 | 29 | 40 | 34 | 20 | 16 | 28 | 14 | 23 |
| Colorado..... | 17 | 48 | 32 | 31 | 22 | 27 | 7 | 3 | 5 | 10 | 5 | 5 | 5 | 1 | ----- | 4 |
| Connecticut..... | 326 | 178 | 92 | 135 | 128 | 61 | 30 | 52 | 26 | 46 | 29 | 27 | 11 | 13 | 13 | 18 |
| Delaware..... | 12 | 17 | 14 | 11 | 10 | 4 | 1 | 1 | ----- | 4 | 8 | 2 | ----- | 3 | 3 | 1 |
| District of Columbia..... | 8 | 14 | 13 | 10 | 14 | 5 | 4 | 6 | 5 | 11 | 6 | ----- | 2 | 6 | 4 | 6 |
| Florida..... | 9 | 16 | 20 | 30 | 9 | 19 | 5 | 4 | 2 | 10 | 16 | 6 | 2 | 2 | 3 | 4 |
| Georgia..... | 8 | 28 | 40 | 39 | 29 | 21 | 3 | 4 | 4 | 5 | 9 | 1 | 1 | 3 | 2 | 3 |
| Idaho..... | 5 | 32 | 10 | 10 | 5 | 3 | ----- | 1 | ----- | ----- | ----- | ----- | ----- | ----- | 2 | 1 |
| Illinois..... | 159 | 282 | 248 | 267 | 254 | 164 | 63 | 72 | 80 | 84 | 72 | 44 | 40 | 52 | 37 | 38 |
| Indiana..... | 75 | 73 | 76 | 106 | 99 | 61 | 15 | 35 | 28 | 45 | 32 | 16 | 13 | 34 | 20 | 18 |
| Iowa..... | 26 | 65 | 41 | 57 | 47 | 42 | 15 | 14 | 15 | 12 | 14 | 6 | 8 | 5 | 5 | 13 |
| Kansas..... | 15 | 53 | 41 | 45 | 14 | 21 | 4 | 5 | 6 | 12 | 2 | 1 | 2 | 5 | 1 | ----- |
| Kentucky..... | 13 | 38 | 19 | 26 | 22 | 17 | 10 | 11 | 12 | 2 | 12 | 12 | 4 | 7 | 29 | 4 |
| Louisiana..... | 8 | 39 | 23 | 51 | 37 | 29 | 8 | 16 | 7 | 3 | 5 | 2 | 3 | 8 | 5 | 2 |
| Maine..... | 30 | 40 | 36 | 40 | 22 | 24 | 11 | 7 | 6 | 10 | 1 | 3 | 5 | 7 | 7 | 3 |
| Maryland..... | 48 | 59 | 72 | 41 | 57 | 27 | 12 | 19 | 25 | 17 | 7 | 9 | 8 | 13 | 10 | 8 |
| Massachusetts..... | 383 | 353 | 347 | 396 | 377 | 201 | 139 | 217 | 97 | 162 | 113 | 70 | 95 | 77 | 45 | 61 |
| Michigan..... | 71 | 64 | 60 | 84 | 63 | 71 | 18 | 19 | 10 | 14 | 12 | 7 | 7 | 16 | 14 | 9 |
| Minnesota..... | 30 | 53 | 40 | 49 | 50 | 45 | 9 | 14 | 4 | 5 | 9 | 11 | 3 | 9 | 6 | 9 |
| Mississippi..... | 4 | 13 | 5 | 2 | 4 | 9 | ----- | 1 | ----- | ----- | 2 | ----- | ----- | 1 | 1 | 2 |
| Missouri..... | 97 | 122 | 105 | 69 | 63 | 54 | 26 | 27 | 35 | 11 | 9 | 14 | 8 | 17 | 11 | 17 |
| Montana..... | 15 | 77 | 33 | 23 | 16 | 21 | 2 | 7 | 1 | 1 | 4 | 3 | 2 | 4 | 7 | 2 |
| Nebraska..... | 21 | 28 | 11 | 17 | 12 | 11 | 3 | 1 | 2 | 2 | 1 | 2 | ----- | 2 | ----- | ----- |
| Nevada..... | ----- | 2 | 7 | 5 | 4 | 1 | 3 | 1 | 1 | ----- | ----- | ----- | ----- | ----- | ----- | 1 |
| New Hampshire..... | 20 | 20 | 17 | 34 | 32 | 6 | 30 | 6 | 8 | 5 | 8 | 4 | 4 | 3 | 1 | 3 |
| New Jersey..... | 417 | 227 | 138 | 183 | 145 | 125 | 71 | 78 | 92 | 92 | 84 | 59 | 46 | 76 | 55 | 77 |
| New Mexico..... | ----- | 4 | 2 | 4 | 1 | 2 | ----- | ----- | ----- | ----- | 1 | ----- | ----- | ----- | ----- | 1 |
| New York..... | 592 | 711 | 689 | 536 | 600 | 384 | 202 | 403 | 281 | 301 | 216 | 181 | 131 | 179 | 149 | 237 |
| North Carolina..... | 8 | 7 | 14 | 22 | 21 | 26 | 6 | 6 | 4 | 7 | 2 | 7 | 1 | 17 | 5 | 2 |
| North Dakota..... | ----- | 2 | 3 | ----- | 4 | 8 | 2 | 1 | 1 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Ohio..... | 290 | 279 | 197 | 237 | 206 | 167 | 73 | 65 | 68 | 73 | 68 | 21 | 27 | 41 | 33 | 54 |
| Oklahoma..... | 24 | 35 | 19 | 32 | 24 | 29 | 9 | 2 | 6 | 10 | 2 | 3 | 3 | 3 | 1 | 6 |
| Oregon..... | 23 | 58 | 18 | 38 | 22 | 23 | 8 | 15 | 13 | 5 | 8 | 10 | 6 | 7 | 2 | 7 |
| Pennsylvania..... | 574 | 494 | 311 | 280 | 250 | 222 | 101 | 234 | 261 | 184 | 162 | 123 | 113 | 184 | 113 | 149 |
| Rhode Island..... | 77 | 105 | 53 | 78 | 89 | 42 | 37 | 25 | 5 | 25 | 28 | 23 | 9 | 17 | 10 | 20 |
| South Carolina..... | 5 | 7 | 3 | 11 | 5 | 12 | 2 | 1 | 1 | ----- | 1 | ----- | ----- | 16 | 2 | 1 |
| South Dakota..... | ----- | 3 | 3 | 3 | 5 | 3 | ----- | 1 | ----- | ----- | ----- | ----- | ----- | 1 | ----- | 1 |
| Tennessee..... | 26 | 42 | 26 | 40 | 27 | 28 | 8 | 7 | 10 | 3 | 7 | 4 | 7 | 6 | 1 | 6 |
| Texas..... | 28 | 56 | 41 | 50 | 73 | 64 | 10 | 15 | 16 | 11 | 4 | 9 | 5 | 5 | 6 | 12 |
| Utah..... | 3 | 21 | 14 | 22 | 14 | 5 | 1 | 1 | 2 | ----- | ----- | 1 | ----- | 1 | ----- | ----- |
| Vermont..... | 10 | 8 | 9 | 13 | 12 | 2 | 13 | ----- | ----- | 4 | 1 | 1 | 1 | 1 | 1 | ----- |
| Virginia..... | 16 | 35 | 37 | 28 | 31 | 14 | 5 | 3 | 4 | 1 | 3 | 1 | 3 | 5 | 3 | 2 |
| Washington..... | 58 | 294 | 130 | 113 | 69 | 63 | 22 | 36 | 15 | 15 | 5 | 9 | 13 | 10 | 6 | 17 |
| West Virginia..... | 40 | 64 | 50 | 63 | 49 | 28 | 8 | 28 | 23 | 20 | 11 | 3 | ----- | 2 | 13 | 32 |
| Wisconsin..... | 63 | 57 | 54 | 77 | 68 | 41 | 21 | 10 | 15 | 14 | 8 | 3 | 8 | 6 | 9 | 13 |
| Wyoming..... | ----- | 2 | 5 | 4 | 6 | 4 | ----- | 1 | 1 | ----- | ----- | 3 | ----- | ----- | 1 | ----- |
| Interstate..... | 4 | 25 | 4 | 21 | 10 | 19 | 27 | 23 | 10 | 12 | 8 | 6 | 10 | 7 | 1 | 2 |
| United States ¹ | 3,758 | 4,443 | 3,347 | 3,571 | 3,291 | 2,381 | 1,088 | 1,553 | 1,240 | 1,300 | 1,032 | 734 | 629 | 603 | 653 | 894 |
| North of the Ohio and east of the Missis- sippi..... | 3,186 | 3,034 | 2,466 | 2,678 | 2,431 | 1,607 | 840 | 1,249 | 1,007 | 1,091 | 869 | 587 | 520 | 728 | 524 | 715 |
| South of the Ohio and east of the Missis- sippi..... | 147 | 309 | 243 | 278 | 227 | 186 | 66 | 71 | 60 | 51 | 66 | 49 | 18 | 60 | 60 | 57 |
| West of the Missis- sippi..... | 421 | 1,075 | 634 | 594 | 623 | 569 | 155 | 210 | 163 | 146 | 89 | 92 | 81 | 108 | 68 | 120 |
| Interstate..... | 4 | 25 | 4 | 21 | 10 | 19 | 27 | 23 | 10 | 12 | 8 | 6 | 10 | 7 | 1 | 2 |

¹ Does not include strikes in Hawaii, Puerto Rico, Canal Zone, and Virgin Islands.

New York City continues to show a greater number of strikes than any other city, it alone accounting for nearly 20 per cent of the total number of strikes reported. Newark, N. J., strikes were reduced one-half while Pittsburgh's strikes were slightly more than doubled.

TABLE 5.—NUMBER OF DISPUTES IN CITIES IN WHICH 25 OR MORE DISPUTES OCCURRED IN ANY YEAR

| City | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Baltimore, Md. | 39 | 36 | 47 | 26 | 34 | 22 | 9 | 15 | 23 | 15 | 4 | 7 | 7 | 10 | 8 | 7 |
| Boston, Mass. | 62 | 87 | 68 | 98 | 51 | 43 | 22 | 43 | 31 | 49 | 39 | 22 | 24 | 19 | 9 | 11 |
| Bridgeport, Conn. | 38 | 30 | 13 | 25 | 10 | 2 | 3 | 2 | 1 | 4 | 5 | 5 | 3 | 1 | | 2 |
| Buffalo, N. Y. | 41 | 28 | 24 | 20 | 47 | 20 | 8 | 8 | 11 | 8 | 6 | 3 | 8 | 8 | 2 | 3 |
| Chicago, Ill. | 73 | 123 | 100 | 126 | 125 | 89 | 26 | 44 | 29 | 58 | 39 | 29 | 11 | 32 | 18 | 21 |
| Cincinnati, Ohio | 29 | 33 | 26 | 39 | 31 | 18 | 10 | 10 | 5 | 3 | 5 | | 1 | 4 | 3 | 4 |
| Cleveland, Ohio | 60 | 76 | 39 | 47 | 41 | 26 | 22 | 13 | 16 | 20 | 15 | 5 | 10 | 11 | 11 | 3 |
| Denver, Colo. | 8 | 26 | 19 | 22 | 15 | 16 | 2 | 2 | 2 | 6 | 3 | 2 | 3 | 1 | | 3 |
| Detroit, Mich. | 31 | 19 | 18 | 40 | 24 | 39 | 12 | 14 | 7 | 9 | 9 | 5 | 3 | 10 | 10 | 2 |
| Fall River, Mass. | 20 | 13 | 18 | 28 | 22 | 10 | 8 | 3 | 2 | 10 | 4 | 8 | 17 | 2 | 5 | 4 |
| Hartford, Conn. | 28 | 21 | 8 | 17 | 19 | 2 | 2 | 1 | 3 | 1 | 3 | 1 | 1 | 2 | 3 | |
| Holyoke, Mass. | 26 | 9 | 17 | 18 | 15 | 3 | 1 | 8 | 1 | 3 | 5 | | | 3 | | 2 |
| Jersey City, N. J. | 28 | 24 | 7 | 25 | 14 | 9 | 9 | 5 | 7 | 6 | 7 | 2 | 3 | 3 | 7 | 6 |
| Kansas City, Mo. | 20 | 36 | 20 | 16 | 13 | 17 | 9 | 6 | 10 | 2 | 3 | 2 | 1 | 2 | 4 | 2 |
| Lynn, Mass. | 8 | 8 | 22 | 11 | 27 | 12 | 14 | 10 | 6 | 12 | 15 | 3 | 15 | 8 | 3 | 3 |
| Milwaukee, Wis. | 30 | 14 | 11 | 27 | 28 | 9 | 11 | 6 | 2 | 4 | 8 | | 2 | 1 | 4 | 7 |
| Newark, N. J. | 55 | 50 | 36 | 33 | 16 | 23 | 6 | 13 | 11 | 15 | 7 | 4 | 9 | 13 | 16 | 8 |
| New Orleans, La. | 7 | 23 | 20 | 40 | 29 | 23 | 7 | 11 | 5 | 2 | 5 | 1 | 2 | 5 | 4 | 1 |
| New York, N. Y. | 363 | 484 | 484 | 370 | 341 | 193 | 140 | 296 | 204 | 228 | 133 | 127 | 90 | 113 | 89 | 167 |
| Paterson, N. J. | 18 | 27 | 20 | 15 | 12 | 17 | 14 | 16 | 21 | 12 | 7 | 5 | 10 | 23 | 7 | 12 |
| Philadelphia, Pa. | 74 | 89 | 80 | 60 | 59 | 61 | 21 | 32 | 54 | 37 | 30 | 23 | 22 | 73 | 33 | 36 |
| Pittsburgh, Pa. | 47 | 37 | 19 | 19 | 15 | 23 | 1 | 5 | 12 | 11 | 8 | 8 | 6 | 11 | 9 | 19 |
| Providence, R. I. | 21 | 46 | 18 | 31 | 32 | 17 | 6 | 5 | 2 | 8 | 14 | 9 | 2 | 4 | 5 | 3 |
| Rochester, N. Y. | 16 | 27 | 35 | 13 | 37 | 36 | 17 | 12 | 13 | 5 | 1 | 11 | 2 | 5 | 2 | 5 |
| San Francisco, Calif. | 23 | 37 | 30 | 34 | 26 | 22 | 7 | 14 | 4 | 11 | 7 | 7 | 2 | 5 | 3 | 4 |
| St. Louis, Mo. | 58 | 53 | 70 | 39 | 40 | 26 | 11 | 19 | 21 | 8 | 4 | 10 | 5 | 12 | 4 | 10 |
| Seattle, Wash. | 15 | 49 | 29 | 24 | 26 | 21 | 5 | 14 | 6 | 4 | 2 | 1 | 4 | 2 | 1 | 6 |
| Springfield, Mass. | 31 | 27 | 12 | 20 | 27 | 6 | 6 | 10 | 4 | 7 | 2 | | | 2 | 2 | |
| Toledo, Ohio | 16 | 16 | 27 | 24 | 20 | 15 | 3 | 8 | 3 | 2 | 3 | | 1 | 2 | 2 | 3 |
| Trenton, N. J. | 25 | 15 | 11 | 4 | 21 | 5 | 1 | 3 | 3 | 4 | 2 | 2 | 1 | 6 | 3 | |
| Wilkes-Barre, Pa. | 6 | 25 | 8 | 4 | 9 | 10 | 7 | 12 | 7 | 4 | 2 | 8 | 8 | 3 | 3 | 1 |
| Worcester, Mass. | 18 | 12 | 11 | 28 | 18 | 12 | 2 | 9 | 4 | 7 | 3 | 2 | 2 | 1 | 1 | 2 |
| Youngstown, Ohio | 27 | 1 | 5 | 14 | 4 | 6 | 4 | 5 | 1 | 4 | 6 | | 1 | 1 | 5 | 5 |

Sex of Workers Involved

TABLE 6 shows the number of disputes involving males, females, or both sexes, by years, 1916 to 1931.

TABLE 6.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY SEX OF EMPLOYEES

| Sex of persons involved | Number of disputes beginning in— | | | | | | | | | | | | | | | |
|-------------------------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
| Males only | 3,121 | 3,611 | 2,467 | 2,818 | 2,347 | 1,750 | 676 | 983 | 877 | 891 | 831 | 587 | 450 | 590 | 488 | 634 |
| Females only | 122 | 158 | 90 | 88 | 78 | 30 | 22 | 31 | 23 | 31 | 33 | 15 | 15 | 22 | 15 | 14 |
| Both sexes | 269 | 190 | 278 | 521 | 343 | 558 | 357 | 445 | 280 | 338 | 150 | 132 | 164 | 291 | 150 | 246 |
| Not reported | 277 | 491 | 518 | 203 | 643 | 47 | 57 | 94 | 69 | 41 | 21 | | | | | |
| Total | 3,789 | 4,450 | 3,353 | 3,630 | 3,411 | 2,385 | 1,112 | 1,553 | 1,249 | 1,301 | 1,035 | 734 | 629 | 903 | 653 | 894 |

Relation of Workers to Unions

IN TABLE 7 it is shown that 700 or about 78 per cent of workers involved in disputes were connected with some labor organization.

TABLE 7.—RELATION OF WORKERS TO LABOR UNIONS

| Relation of workers to union | Number of disputes | | | | | | | | | | | | | | | | |
|-------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|--|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | |
| Connected with unions | 2,458 | 2,392 | 1,903 | 2,033 | 2,506 | 2,038 | 844 | 1,265 | 1,063 | 1,018 | 823 | 614 | 534 | 711 | 539 | 700 | |
| Not connected with unions | 446 | 209 | 362 | 143 | 137 | 62 | 37 | 77 | 69 | 142 | 93 | 67 | 66 | 157 | 93 | 183 | |
| Organized after dispute began | 71 | 55 | 26 | 30 | 8 | 5 | 5 | 18 | 14 | 16 | 19 | 16 | 4 | 20 | 15 | 2 | |
| Union and nonunion workers | | | | | | | 12 | 29 | 31 | 38 | 15 | 5 | 4 | 15 | 6 | 9 | |
| Not reported | 814 | 1,794 | 1,062 | 1,424 | 760 | 280 | 214 | 164 | 72 | 87 | 85 | 32 | 21 | | | | |
| Total | 3,789 | 4,450 | 3,353 | 3,630 | 3,411 | 2,385 | 1,112 | 1,553 | 1,249 | 1,301 | 1,035 | 734 | 629 | 903 | 653 | 894 | |

Causes of Disputes

MANY causes are shown as being productive of industrial strife but the chief among all of these is that of wages. Nearly 30 per cent of all strikes for the year 1931 were reported to have been brought about because of a reduction in wages. If the question of wages be studied both as a major and a minor factor in strikes it may be seen from the table following that 546 or 61 per cent of all disputes in the year 1931 contained some wage dispute element.

TABLE 8.—PRINCIPAL CAUSES OF DISPUTES BEGINNING IN EACH YEAR

| Cause of dispute | Number of disputes beginning in— | | | | | | | | | | | | | | | |
|--|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
| Increase of wages | 1,301 | 1,571 | 1,397 | 1,115 | 1,429 | 120 | 156 | 445 | 255 | 277 | 260 | 142 | 96 | 101 | 62 | 52 |
| Decrease of wages | 35 | 36 | 36 | 86 | 147 | 896 | 261 | 49 | 125 | 117 | 52 | 57 | 53 | 72 | 122 | 264 |
| Increase of wages and decrease of hours | 481 | 378 | 256 | 578 | 269 | 34 | 16 | 58 | 30 | 29 | 39 | 43 | 27 | 75 | 53 | 10 |
| Decrease of wages and increase of hours | | | | | | 77 | 40 | | 7 | 4 | 1 | 1 | 1 | 2 | 4 | 7 |
| Other causes involving wages | 96 | 115 | 93 | 110 | 121 | 55 | 76 | 144 | 96 | 97 | 101 | 85 | 113 | 125 | 62 | 157 |
| Decrease of hours | 113 | 132 | 79 | 117 | 62 | 294 | 22 | 16 | 18 | 7 | 19 | 20 | 6 | 16 | 5 | 6 |
| Increase of hours | 7 | 18 | 6 | 25 | 8 | 18 | 12 | 5 | 5 | 6 | 4 | 3 | 3 | | 1 | 2 |
| Other causes involving hours | 3 | 18 | 2 | 5 | 2 | 7 | | 4 | 1 | | 2 | 9 | 5 | 23 | 8 | 6 |
| Recognition of unions | 404 | 333 | 241 | 522 | 308 | 191 | 137 | 153 | 152 | 109 | 117 | 119 | 71 | 92 | 120 | 116 |
| Recognition and wages | 93 | 132 | 79 | 78 | 87 | 106 | 10 | 37 | 21 | 30 | 11 | 20 | 22 | 50 | 24 | 36 |
| Recognition and hours | 20 | 27 | 16 | 16 | 6 | 14 | 3 | 6 | 1 | 1 | | 2 | 2 | 1 | 3 | 3 |
| Recognition, wages, and hours | 56 | 48 | 49 | 76 | 45 | 11 | 8 | 25 | 7 | 4 | 13 | 7 | 14 | 26 | 18 | 20 |
| Recognition and other conditions | 4 | 13 | 7 | 14 | 6 | 6 | 6 | 8 | 9 | 1 | 4 | 23 | 16 | 100 | 5 | 37 |
| General conditions | 68 | 116 | 93 | 123 | 116 | 83 | 72 | 80 | 79 | 89 | 66 | 47 | 17 | 95 | 30 | 18 |
| Discharge of employ- ees | 144 | 246 | 192 | 163 | 170 | 45 | 44 | 79 | 54 | 74 | 61 | 50 | 58 | 41 | 46 | 42 |
| Unfair products | 7 | 9 | 1 | 5 | 30 | 27 | 18 | 7 | 8 | 4 | 16 | 3 | 7 | 2 | 3 | 1 |
| Sympathy | 33 | 71 | 35 | 108 | 67 | 36 | 33 | 31 | 22 | 39 | 29 | 23 | 8 | 20 | 12 | 21 |
| Jurisdiction and pro- test | 19 | 21 | 16 | 16 | 20 | 10 | 10 | 13 | 23 | 59 | 17 | 13 | 33 | 21 | 28 | 19 |
| Other conditions | 274 | 374 | 294 | 223 | 213 | 192 | 125 | 310 | 228 | 254 | 175 | | 75 | 41 | 47 | 77 |
| Not reported | 631 | 792 | 461 | 250 | 305 | 163 | 63 | 83 | 108 | 100 | 48 | 67 | | | | |
| Total | 3,789 | 4,450 | 3,353 | 3,630 | 3,411 | 2,385 | 1,112 | 1,553 | 1,249 | 1,301 | 1,035 | 734 | 629 | 903 | 653 | 894 |

Size of Disputes

THE number of disputes classified according to the number of workers involved is shown in Table 9 by years.

TABLE 9.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY CLASSIFIED NUMBER OF PERSONS INVOLVED

| Number involved | Number of disputes beginning in— | | | | | | | | | | | | | | | |
|----------------------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
| 1 to 10..... | 210 | 171 | 152 | 186 | 161 | 257 | 80 | 128 | 125 | 142 | 60 | 83 | 61 | 63 | 64 | 116 |
| 11 to 25..... | 355 | 304 | 279 | 297 | 322 | 336 | 128 | 182 | 120 | 167 | 153 | 158 | 155 | 188 | 146 | 181 |
| 26 to 50..... | 427 | 350 | 343 | 353 | 349 | 287 | 156 | 206 | 145 | 195 | 105 | 137 | 126 | 160 | 135 | 169 |
| 51 to 100..... | 420 | 361 | 357 | 404 | 367 | 352 | 159 | 157 | 114 | 166 | 124 | 112 | 82 | 156 | 88 | 151 |
| 101 to 250..... | 399 | 368 | 384 | 494 | 381 | 245 | 144 | 161 | 119 | 147 | 119 | 106 | 71 | 151 | 107 | 137 |
| 251 to 500..... | 354 | 287 | 287 | 356 | 289 | 164 | 91 | 135 | 93 | 97 | 96 | 60 | 47 | 86 | 60 | 73 |
| 501 to 1,000..... | 241 | 194 | 143 | 217 | 145 | 103 | 61 | 78 | 81 | 52 | 66 | 45 | 34 | 46 | 27 | 29 |
| 1,001 to 10,000..... | 238 | 223 | 204 | 332 | 184 | 133 | 61 | 119 | 78 | 43 | 58 | 31 | 49 | 52 | 25 | 34 |
| Over 10,000..... | 23 | 68 | 17 | 54 | 19 | 15 | 16 | 5 | 13 | 3 | 2 | 2 | 4 | 1 | 1 | 4 |
| Not reported..... | 1,122 | 2,124 | 1,187 | 937 | 1,194 | 593 | 216 | 382 | 361 | 289 | 252 | | | | | |
| Total..... | 3,789 | 4,450 | 3,353 | 3,630 | 3,411 | 2,385 | 1,112 | 1,553 | 1,249 | 1,301 | 1,035 | 734 | 629 | 903 | 653 | 894 |

Table 10 shows the average number of workers involved in disputes in 1931 to be slightly higher than for the years 1929 and 1930.

TABLE 10.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR FOR WHICH NUMBER OF EMPLOYEES IS REPORTED, AND TOTAL AND AVERAGE NUMBER INVOLVED, 1916 TO 1931

| Year | Disputes in which number of employees is reported | | | Year | Disputes in which number of employees is reported | | |
|-----------|---|---------------------|---|-----------|---|---------------------|---|
| | Number of disputes | Number of employees | Average number of employees per dispute | | Number of disputes | Number of employees | Average number of employees per dispute |
| 1916..... | 2,667 | 1,599,917 | 600 | 1924..... | 898 | 654,641 | 729 |
| 1917..... | 2,325 | 1,227,254 | 528 | 1925..... | 1,012 | 428,416 | 423 |
| 1918..... | 2,151 | 1,239,989 | 576 | 1926..... | 783 | 329,592 | 421 |
| 1919..... | 2,665 | 4,160,348 | 1,561 | 1927..... | 734 | 349,434 | 476 |
| 1920..... | 2,226 | 1,463,054 | 657 | 1928..... | 629 | 357,145 | 568 |
| 1921..... | 1,785 | 1,099,247 | 616 | 1929..... | 903 | 230,463 | 255 |
| 1922..... | 899 | 1,612,562 | 1,794 | 1930..... | 653 | 158,114 | 242 |
| 1923..... | 1,199 | 756,584 | 631 | 1931..... | 894 | 279,290 | 312 |

The bureau has defined "establishment" as a working place and not as a company, since the term "company" frequently involves several separate and distinct units. Even on this basis, it is difficult to obtain accurate information on this point, but the best obtainable data are shown in Table 11.

TABLE 11.—NUMBER OF ESTABLISHMENTS INVOLVED

| Establishments involved | Number of disputes | | | | | | | | | | | | | | |
|-------------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|-------|-------|-------|
| | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
| 1..... | 3, 078 | 2, 541 | 2, 136 | 1, 989 | 1, 071 | 745 | 1, 133 | 820 | 898 | 649 | 453 | 427 | 639 | 460 | 686 |
| 2..... | 143 | 70 | 142 | 86 | 113 | 28 | 56 | 34 | 60 | 26 | 36 | 24 | 38 | 42 | 41 |
| 3..... | 73 | 42 | 99 | 59 | 94 | 17 | 35 | 23 | 25 | 23 | 18 | 20 | 37 | 12 | 24 |
| 4..... | 41 | 23 | 59 | 40 | 62 | 17 | 15 | 16 | 24 | 10 | 16 | 18 | 9 | 10 | 13 |
| 5..... | 18 | 90 | 52 | 35 | 43 | 9 | 10 | 17 | 12 | 14 | 14 | 17 | 46 | 20 | 19 |
| Over 5..... | 403 | 327 | 910 | 426 | 584 | 104 | 103 | 84 | 98 | 94 | 163 | 95 | 134 | 109 | 111 |
| Not reported..... | 694 | 260 | 232 | 776 | 418 | 192 | 201 | 255 | 184 | 219 | 34 | 28 | ----- | ----- | ----- |
| Total..... | 4, 450 | 3, 353 | 3, 630 | 3, 411 | 2, 385 | 1, 112 | 1, 553 | 1, 249 | 1, 301 | 1, 035 | 734 | 629 | 903 | 653 | 894 |

Industries Involved in Labor Disputes

TABLE 12 shows that the four principal industries involved in labor troubles are building, clothing, mining, and textiles. Of these, there are but slight differences in the number of workers involved in 1931 as against 1930 in either building trades or clothing. There is, however, a great difference in the case of mining and textiles; the former has more than doubled, while textiles involved a number of workers five times as great as for the year 1930.

TABLE 12.—NUMBER OF PERSONS DIRECTLY INVOLVED IN INDUSTRIAL DISPUTES, 1930 AND 1931, BY SELECTED INDUSTRIES

| Industry | 1930 | 1931 | Industry | 1930 | 1931 |
|--------------------------|--------|--------|---|--------|--------|
| Building trades..... | 25,529 | 22,555 | Printing and publishing..... | 160 | 285 |
| Clothing..... | 54,177 | 54,524 | Shipbuilding..... | ----- | ----- |
| Furniture..... | 891 | 1,168 | Slaughtering, meat cutting and packing..... | ----- | ----- |
| Iron and steel..... | 940 | 1,855 | Stone work..... | 338 | 515 |
| Leather..... | 130 | 3,438 | Textiles..... | 11,553 | 58,449 |
| Lumber..... | 452 | 1,257 | Tobacco..... | 114 | 8,224 |
| Metal trades..... | 2,142 | 1,548 | Transportation, steam and electric..... | 767 | ----- |
| Mining, coal..... | 35,403 | 87,423 | | | |
| Paper manufacturing..... | 58 | 14 | | | |

Table 13 gives the number of disputes in selected industry or trade groups, by years, 1916 to 1931.

TABLE 13.—NUMBER OF DISPUTES IN SELECTED INDUSTRY GROUPS

| Industry | Number of disputes | | | | | | | | | | | | | | | | |
|---|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | |
| Building trades..... | 394 | 468 | 434 | 473 | 521 | 583 | 113 | 208 | 270 | 349 | 272 | 194 | 134 | 212 | 186 | 215 | |
| Clothing..... | 227 | 495 | 436 | 322 | 336 | 240 | 240 | 395 | 238 | 231 | 194 | 129 | 124 | 169 | 103 | 162 | |
| Furniture..... | 50 | 43 | 26 | 35 | 26 | 17 | 4 | 12 | 35 | 56 | 46 | 41 | 25 | 32 | 19 | 31 | |
| Iron and steel..... | 72 | 56 | 74 | 76 | 25 | 25 | 10 | 10 | 7 | 7 | 2 | 2 | 2 | 3 | 3 | 5 | |
| Leather..... | 34 | 19 | 16 | 27 | 32 | 26 | 17 | 17 | 5 | 5 | 11 | 12 | 5 | 11 | 5 | 14 | |
| Lumber..... | 44 | 299 | 76 | 46 | 38 | 25 | 10 | 19 | 6 | 9 | 3 | 3 | 7 | 3 | 3 | 11 | |
| Metal trades..... | 547 | 515 | 441 | 581 | 452 | 194 | 83 | 113 | 58 | 48 | 75 | 19 | 28 | 53 | 28 | 24 | |
| Mining, coal..... | 373 | 355 | 162 | 148 | 161 | 87 | 44 | 158 | 177 | 100 | 78 | 60 | 83 | 77 | 76 | 119 | |
| Mining, other..... | 43 | 94 | 46 | 28 | 22 | 8 | 5 | 1 | 1 | 4 | | | | | | | |
| Paper manufacturing..... | 54 | 41 | 40 | 47 | 39 | 42 | 12 | 16 | 6 | 6 | 10 | 1 | 2 | 3 | 2 | 1 | |
| Printing and publishing..... | 27 | 41 | 40 | 71 | 83 | 506 | 56 | 19 | 12 | 14 | 9 | 22 | 10 | 8 | 11 | 14 | |
| Shipbuilding..... | 31 | 106 | 140 | 109 | 45 | 20 | 4 | 6 | 1 | | | | 2 | 1 | | | |
| Slaughtering, meat cutting and packing..... | 70 | 38 | 42 | 74 | 42 | 30 | 6 | 11 | 14 | 2 | 5 | 5 | 4 | 3 | | | |
| Stone..... | 61 | 26 | 14 | 13 | 29 | 34 | 61 | 15 | 15 | 17 | 11 | 4 | 8 | 2 | 5 | 6 | |
| Textiles..... | 261 | 247 | 212 | 273 | 211 | 114 | 115 | 134 | 80 | 139 | 90 | 80 | 65 | 130 | 67 | 106 | |
| Tobacco..... | 63 | 47 | 50 | 58 | 38 | 19 | 13 | 16 | 12 | 4 | 14 | 3 | 2 | 5 | 2 | 10 | |
| Transportation, steam and electric..... | 228 | 343 | 227 | 191 | 241 | 37 | 67 | 31 | 18 | 7 | 8 | 1 | 3 | 5 | 3 | | |

The number of disputes, by selected occupations, for the years 1916 to 1931, is shown in Table 14.

TABLE 14.—NUMBER OF DISPUTES IN SPECIFIED OCCUPATIONS, BY YEARS

| Occupation | Number of disputes | | | | | | | | | | | | | | | | |
|---|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | |
| Bakers..... | 81 | 106 | 47 | 88 | 75 | 99 | 24 | 35 | 72 | 55 | 14 | 8 | 10 | 7 | 7 | 14 | |
| Boilermakers..... | 23 | 44 | 28 | 31 | 22 | 16 | 4 | 9 | 3 | 5 | 4 | | | 6 | | | |
| Boot and shoe workers..... | 45 | 38 | 50 | 54 | 63 | 28 | 55 | 53 | 27 | 31 | 25 | 13 | 24 | 53 | 21 | 29 | |
| Brewery workers..... | 21 | 22 | 27 | 23 | 25 | 24 | 12 | 4 | 10 | 6 | 2 | 2 | 2 | | | 3 | |
| Brick and tile workers..... | 23 | 9 | 5 | 16 | 21 | 12 | 14 | 6 | 8 | 13 | 7 | 1 | | 4 | 2 | 4 | |
| Building laborers and hod carriers..... | 54 | 74 | 27 | 49 | 90 | 10 | 7 | 39 | 19 | 35 | 26 | 22 | 18 | 27 | 24 | 62 | |
| Carpenters..... | 75 | 101 | 81 | 96 | 73 | 49 | 20 | 22 | 34 | 50 | 27 | 22 | 35 | 48 | 39 | 66 | |
| Chauffeurs and teamsters..... | 108 | 164 | 129 | 95 | 130 | 43 | 20 | 51 | 39 | 44 | 22 | 25 | 16 | 62 | 40 | 43 | |
| Freight handlers and longshoremen..... | 158 | 194 | 89 | 58 | 68 | 36 | 18 | 23 | 12 | 10 | 7 | 3 | 1 | 4 | 6 | 11 | |
| Glass workers..... | 41 | 23 | 13 | 9 | 11 | 2 | 4 | 14 | 7 | 8 | 6 | 10 | 4 | 2 | | 5 | |
| Hat and cap and fur workers..... | 26 | 52 | 38 | 38 | 51 | 25 | 40 | 25 | 34 | 25 | 32 | 19 | 12 | 17 | 13 | 29 | |
| Inside wiremen..... | 32 | 33 | 45 | 33 | 51 | 29 | 7 | 9 | 18 | 16 | 17 | 12 | 10 | 46 | 23 | 37 | |
| Machinists..... | 257 | 204 | 207 | 202 | 127 | 29 | 8 | 13 | 6 | | 15 | | 1 | 5 | 3 | 1 | |
| Metal polishers..... | 43 | 25 | 29 | 61 | 78 | 8 | 3 | 4 | 10 | 8 | 10 | 3 | 6 | 7 | 8 | 2 | |
| Miners, coal..... | 373 | 355 | 162 | 148 | 161 | 87 | 44 | 158 | 177 | 99 | 78 | 60 | 83 | 53 | 76 | 119 | |
| Molders..... | 145 | 156 | 110 | 181 | 145 | 93 | 38 | 54 | 29 | 13 | 21 | 12 | 15 | 14 | 9 | 8 | |
| Painters and paper hangers..... | 46 | 45 | 61 | 81 | 46 | 62 | 10 | 20 | 25 | 29 | 22 | 23 | 10 | 39 | 16 | 44 | |
| Plumbers and steam fitters..... | 53 | 53 | 72 | 55 | 81 | 82 | 21 | 25 | 42 | 55 | 38 | 28 | 23 | 57 | 36 | 57 | |
| Rubber workers..... | 38 | 19 | 15 | 15 | 14 | 3 | 3 | 7 | 2 | 6 | 2 | 2 | 2 | 4 | | | |
| Sheet-metal workers..... | 23 | 33 | 45 | 19 | 14 | 82 | 8 | 13 | 18 | 9 | 18 | 6 | 3 | 19 | 7 | 30 | |
| Street-railway employees..... | 56 | 118 | 117 | 110 | 81 | 12 | 19 | 21 | 14 | 5 | 8 | 2 | 3 | 2 | 2 | | |
| Structural-iron workers..... | 23 | 16 | 20 | 15 | 32 | 5 | 6 | 18 | 13 | 16 | 12 | 10 | 13 | 28 | 21 | 47 | |
| Tailors..... | 38 | 50 | 51 | 70 | 42 | 58 | 19 | 32 | 11 | 22 | 16 | 14 | 6 | 3 | 2 | 5 | |

Months in Which Disputes Ended

TABLE 15 shows the number of disputes ending each month, by years, 1916 to 1931.

TABLE 15.—NUMBER OF DISPUTES ENDING IN EACH MONTH

| Year | Number of disputes ending in— | | | | | | | | | | | | | Total |
|-----------|-------------------------------|------|------|------|-----|------|------|------|-------|------|------|------|------------------|-------|
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Month not stated | |
| 1916..... | 117 | 132 | 176 | 292 | 337 | 216 | 200 | 217 | 223 | 173 | 156 | 78 | 131 | 2,448 |
| 1917..... | 111 | 94 | 159 | 198 | 223 | 172 | 157 | 156 | 201 | 177 | 122 | 132 | 172 | 2,074 |
| 1918..... | 105 | 125 | 168 | 208 | 261 | 223 | 211 | 207 | 175 | 147 | 117 | 166 | 85 | 2,198 |
| 1919..... | 122 | 113 | 128 | 144 | 226 | 195 | 207 | 252 | 239 | 194 | 147 | 120 | 133 | 2,220 |
| 1920..... | 84 | 85 | 129 | 197 | 200 | 188 | 191 | 157 | 155 | 117 | 72 | 60 | 237 | 1,872 |
| 1921..... | 64 | 61 | 106 | 102 | 222 | 171 | 144 | 141 | 91 | 81 | 65 | 46 | 232 | 1,526 |
| 1922..... | 42 | 39 | 37 | 37 | 77 | 52 | 58 | 65 | 70 | 58 | 61 | 53 | 92 | 741 |
| 1923..... | 32 | 54 | 78 | 144 | 182 | 114 | 121 | 85 | 85 | 95 | 57 | 36 | 62 | 1,145 |
| 1924..... | 69 | 78 | 92 | 90 | 129 | 109 | 83 | 62 | 55 | 69 | 47 | 43 | 33 | 959 |
| 1925..... | 68 | 66 | 65 | 110 | 131 | 93 | 71 | 111 | 81 | 92 | 57 | 34 | 10 | 989 |
| 1926..... | 33 | 46 | 62 | 76 | 111 | 73 | 60 | 77 | 77 | 59 | 51 | 37 | 18 | 780 |
| 1927..... | 19 | 38 | 51 | 64 | 80 | 82 | 88 | 65 | 54 | 37 | 35 | 26 | | 639 |
| 1928..... | 41 | 57 | 52 | 70 | 72 | 54 | 58 | 59 | 60 | 53 | 48 | 32 | | 656 |
| 1929..... | 43 | 55 | 75 | 101 | 95 | 89 | 84 | 88 | 92 | 87 | 60 | 44 | | 913 |
| 1930..... | 45 | 33 | 51 | 61 | 78 | 54 | 82 | 48 | 61 | 55 | 51 | 48 | | 667 |
| 1931..... | 45 | 42 | 52 | 60 | 108 | 89 | 69 | 94 | 88 | 97 | 68 | 68 | | 880 |

Termination of Disputes, by Result

IN TABLE 16 the number of disputes is classified by results for each year, 1916 to 1931. It will be noted that 410, or 47 per cent, of the disputes were settled in favor of employers while 241, or 27 per cent, were in favor of employees and 186, or 21 per cent, were compromised, in which case both the employer and employees gained some points.

Jurisdictional and protest strikes have increased to such an extent in recent years that it is felt that the number of such disputes may prove interesting, and for this reason such strikes have been segregated in this table. A jurisdictional dispute is one in which trades or occupations are directly involved, one against another. As far as the employer is concerned, they are often more disastrous than the dispute in which he is immediately affected. A protest strike is one which, as its name indicates, simply expresses dislike for some rule, executive, or condition. It is usually of very short duration and frequently is officially unauthorized.

TABLE 16.—RESULTS OF DISPUTES ENDING IN EACH YEAR

| Result | Number of disputes ending in— | | | | | | | | | | | | | | | |
|---|-------------------------------|--------|--------|--------|--------|--------|------|--------|------|------|------|------|-----------------|-----------------|-----------------|-----------------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
| In favor of employers..... | 748 | 395 | 465 | 687 | 677 | 701 | 248 | 368 | 283 | 253 | 226 | 169 | 272 | 367 | 294 | 410 |
| In favor of employees..... | 749 | 631 | 627 | 627 | 472 | 256 | 259 | 403 | 354 | 349 | 288 | 235 | 197 | 267 | 167 | 241 |
| Compromise..... | 777 | 720 | 691 | 797 | 448 | 291 | 105 | 168 | 138 | 138 | 147 | 129 | 160 | 226 | 159 | 186 |
| Employees returned pending arbitration..... | 73 | 137 | 204 | 50 | 61 | 80 | 16 | 46 | 45 | 51 | 36 | 29 | 3 | 3 | — | — |
| Jurisdictional and protest..... | — | — | — | — | — | — | — | — | — | — | — | — | 14 | 33 | 27 | 21 |
| Not reported..... | 101 | 191 | 211 | 59 | 214 | 198 | 113 | 160 | 139 | 198 | 83 | 77 | ¹ 10 | ² 17 | ³ 20 | ⁴ 22 |
| Total..... | 2, 448 | 2, 074 | 2, 198 | 2, 220 | 1, 872 | 1, 526 | 741 | 1, 145 | 959 | 989 | 780 | 639 | 656 | 913 | 667 | 880 |

¹ Results of 7 strikes undetermined.³ Results of 20 strikes undetermined.² Results of 16 strikes undetermined.⁴ Results of 22 strikes undetermined.

Duration of Disputes

TABLE 17 shows the number of disputes and the total duration and average duration of disputes, 1916 to 1931.

TABLE 17.—NUMBER OF DISPUTES FOR WHICH DURATION IS KNOWN, AND TOTAL AND AVERAGE DURATION

| Year in which disputes ended | Number of disputes for which duration is reported | Total duration (days) | Average duration (days) | Year in which disputes ended | Number of disputes for which duration is reported | Total duration (days) | Average duration (days) |
|------------------------------|---|-----------------------|-------------------------|------------------------------|---|-----------------------|-------------------------|
| 1916..... | 2, 116 | 49, 680 | 23 | 1924..... | 957 | 28, 588 | 30 |
| 1917..... | 1, 435 | 26, 981 | 19 | 1925..... | 879 | 23, 809 | 27 |
| 1918..... | 1, 709 | 29, 895 | 17 | 1926..... | 738 | 18, 805 | 25 |
| 1919..... | 1, 855 | 62, 930 | 34 | 1927..... | 669 | 15, 865 | 24 |
| 1920..... | 1, 321 | 51, 893 | 39 | 1928..... | 656 | 17, 997 | 27 |
| 1921..... | 1, 258 | 64, 231 | 51 | 1929..... | 913 | 18, 507 | 20 |
| 1922..... | 580 | 21, 436 | 37 | 1930..... | 667 | 12, 292 | 18 |
| 1923..... | 968 | 23, 177 | 24 | 1931..... | 880 | 14, 154 | 16 |

The classified period of duration of disputes by years is shown in Table 18, following:

TABLE 18.—DISPUTES ENDING IN EACH YEAR, BY CLASSIFIED PERIODS OF DURATION

| Duration | Number of disputes ending in— | | | | | | | | | | | | | | | | |
|-----------------|-------------------------------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|------|------|------|------|--|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | |
| Less than 1 day | 38 | 88 | 84 | 29 | 31 | 32 | 18 | 26 | 23 | 42 | | | | | | | |
| 1 day | 141 | 196 | 145 | 76 | 57 | 27 | 48 | 82 | 42 | 55 | 51 | 61 | 95 | 139 | 66 | 99 | |
| 2 days | 185 | 113 | 171 | 70 | 64 | 44 | 39 | 74 | 46 | 52 | 47 | 38 | 56 | 72 | 53 | 75 | |
| 3 days | 147 | 105 | 127 | 80 | 54 | 44 | 27 | 68 | 31 | 62 | 42 | 49 | 50 | 67 | 54 | 74 | |
| 4 days | 125 | 62 | 111 | 78 | 51 | 47 | 23 | 66 | 46 | 39 | 32 | 22 | 39 | 46 | 39 | 47 | |
| 5 days | 131 | 56 | 72 | 74 | 36 | 35 | 26 | 36 | 27 | 34 | 34 | 29 | 27 | 44 | 27 | 52 | |
| 6 days | 112 | 65 | 67 | 45 | 44 | 32 | 13 | 44 | 30 | 26 | 30 | 45 | 44 | 48 | 32 | 52 | |
| 7 days | 93 | 95 | 115 | 69 | 66 | 45 | 34 | 62 | 47 | 47 | 48 | 17 | 14 | 37 | 36 | 27 | |
| 8 days | 86 | 29 | 60 | 72 | 45 | 30 | 19 | 29 | 21 | 24 | 13 | 18 | 13 | 29 | 36 | 28 | |
| 9 days | 50 | 31 | 38 | 33 | 30 | 19 | 10 | 26 | 14 | 27 | 21 | 19 | 11 | 25 | 19 | 28 | |
| 10 days | 108 | 43 | 58 | 57 | 31 | 44 | 15 | 20 | 17 | 23 | 25 | 18 | 21 | 21 | 20 | 27 | |
| 11 days | 41 | 24 | 24 | 30 | 28 | 19 | 5 | 16 | 17 | 19 | 12 | 24 | 15 | 19 | 15 | 25 | |
| 12 days | 42 | 39 | 26 | 28 | 24 | 12 | 6 | 17 | 6 | 21 | 10 | 29 | 21 | 43 | 14 | 21 | |
| 13 days | 27 | 13 | 16 | 30 | 21 | 14 | 10 | 32 | 12 | 14 | 6 | 16 | 12 | 17 | 10 | 13 | |
| 14 days | 64 | 40 | 49 | 42 | 40 | 25 | 9 | 36 | 26 | 33 | 19 | 10 | 7 | 15 | 17 | 13 | |
| 15 to 18 days | 148 | 75 | 88 | 113 | 83 | 76 | 41 | 54 | 39 | 60 | 34 | 30 | 36 | 42 | 43 | 45 | |
| 19 to 21 days | 83 | 46 | 72 | 95 | 25 | 49 | 27 | 39 | 23 | 47 | 20 | 21 | 13 | 29 | 14 | 37 | |
| 22 to 24 days | 40 | 23 | 40 | 51 | 41 | 16 | 15 | 12 | 17 | 36 | 20 | 18 | 12 | 19 | 18 | 39 | |
| 25 to 28 days | 61 | 35 | 32 | 65 | 56 | 31 | 9 | 33 | 39 | 28 | 25 | 23 | 21 | 28 | 22 | 43 | |
| 29 to 31 days | 53 | 28 | 65 | 74 | 47 | 43 | 9 | 40 | 27 | 23 | 25 | 22 | 14 | 17 | 14 | 17 | |
| 32 to 35 days | 25 | 27 | 31 | 61 | 21 | 36 | 13 | 20 | 23 | 17 | 25 | 26 | 9 | 19 | 15 | 14 | |
| 36 to 42 days | 50 | 38 | 39 | 81 | 46 | 54 | 14 | 14 | 26 | 2 | 24 | 19 | 21 | 26 | 18 | 24 | |
| 43 to 49 days | 24 | 29 | 36 | 78 | 48 | 40 | 14 | 13 | 26 | 18 | 22 | 20 | 11 | 28 | 14 | 16 | |
| 50 to 63 days | 53 | 37 | 48 | 124 | 69 | 86 | 29 | 24 | 43 | 32 | 21 | 28 | 23 | 19 | 25 | 32 | |
| 64 to 77 days | 40 | 22 | 18 | 72 | 51 | 60 | 18 | 24 | 27 | 12 | 15 | 16 | 12 | 19 | 18 | 12 | |
| 78 to 91 days | 27 | 12 | 17 | 57 | 41 | 61 | 14 | 16 | 12 | 9 | 8 | 5 | 14 | 13 | 14 | 5 | |
| 92 to 200 days | 99 | 55 | 35 | 149 | 125 | 186 | 51 | 25 | 55 | 39 | 25 | 15 | 30 | 25 | 12 | 14 | |
| Over 200 days | 23 | 9 | 24 | 22 | 46 | 51 | 15 | 19 | 23 | 15 | 5 | 1 | 15 | 7 | 2 | | |
| Not reported | 332 | 639 | 489 | 365 | 551 | 268 | 165 | 178 | 174 | 114 | 93 | | | | | | |
| Total | 2,448 | 2,074 | 2,198 | 2,220 | 1,872 | 1,526 | 741 | 1,145 | 959 | 989 | 752 | 639 | 656 | 913 | 667 | 880 | |

Termination of Disputes as Related to Length

OF THE 880 disputes terminated in 1931, 399, or 45 per cent, were settled within 6 days, and 581, or 67 per cent, within 14 days.

TABLE 19.—NUMBER OF STRIKES TERMINATED IN 1931, BY PERIOD OF DURATION

| Duration | In favor of employers | In favor of employees | Compromised | Otherwise settled | Total |
|------------------|-----------------------|-----------------------|-------------|-------------------|-------|
| 1 to 6 days | 180 | 124 | 80 | 15 | 399 |
| 7 to 14 days | 70 | 59 | 42 | 11 | 182 |
| 15 to 28 days | 86 | 39 | 32 | 7 | 164 |
| 29 days and over | 74 | 19 | 32 | 10 | 135 |
| Total | 410 | 241 | 186 | 43 | 880 |

Since 1926 it has been the policy of the bureau to omit from tabulation all strikes involving less than six workers and also those lasting less than one day.

A general summary of these strikes for the past year shows that 16 such strikes occurred in the clothing trades, 23 in the building trades, 18 in the bakery trades, and 9 among motion-picture operators, actors, and theatrical workers, leaving 39 other disputes scattered among 13 other trade groups.

Strikes and Lockouts in the United States in April, 1932

DATA regarding industrial disputes in the United States for April, 1932, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in 1927, 1928, 1929, 1930, and 1931, the number of workers involved and man-days lost for these years and for each of the months, January, 1930, to April, 1932, inclusive, as well as the number of disputes in effect at the end of each month and the number of workers involved. The number of man-days lost, as given in the last column of the table, refers to the estimated number of working days lost by workers involved in disputes which were in progress during the month or year specified.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1930, TO APRIL, 1932, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS, 1927 TO 1931

| Month and year | Number of disputes | | Number of workers involved in disputes | | Number of man-days lost in disputes existing in month or year |
|--------------------|----------------------------|---------------------------|--|---------------------------|---|
| | Beginning in month or year | In effect at end of month | Beginning in month or year | In effect at end of month | |
| 1927: Total | 734 | | 349,434 | | 37,799,394 |
| 1928: Total | 629 | | 357,145 | | 31,556,947 |
| 1929: Total | 903 | | 230,463 | | 9,975,213 |
| 1930: Total | 653 | | 158,114 | | 2,730,368 |
| 1931: Total | 894 | | 279,299 | | 6,386,183 |
| 1930 | | | | | |
| January | 45 | 21 | 9,240 | 5,316 | 184,730 |
| February | 52 | 40 | 37,480 | 6,683 | 438,570 |
| March | 49 | 38 | 15,017 | 5,957 | 291,127 |
| April | 64 | 41 | 6,379 | 5,840 | 189,828 |
| May | 66 | 29 | 9,329 | 4,386 | 185,448 |
| June | 59 | 34 | 14,011 | 8,311 | 144,117 |
| July | 78 | 30 | 14,308 | 4,815 | 141,647 |
| August | 51 | 33 | 15,902 | 7,131 | 142,738 |
| September | 72 | 44 | 16,337 | 13,778 | 208,184 |
| October | 47 | 36 | 10,858 | 16,007 | 335,916 |
| November | 44 | 29 | 4,390 | 7,759 | 273,608 |
| December | 26 | 7 | 4,863 | 5,144 | 194,455 |
| 1931 | | | | | |
| January | 57 | 19 | 10,150 | 2,905 | 181,169 |
| February | 52 | 29 | 20,473 | 10,677 | 223,660 |
| March | 49 | 26 | 26,453 | 28,012 | 476,904 |
| April | 73 | 39 | 27,135 | 22,687 | 770,512 |
| May | 115 | 46 | 28,000 | 15,603 | 400,509 |
| June | 90 | 47 | 18,795 | 15,223 | 511,926 |
| July | 73 | 51 | 49,434 | 56,683 | 612,864 |
| August | 79 | 36 | 11,019 | 14,759 | 1,157,013 |
| September | 117 | 65 | 36,092 | 37,427 | 493,649 |
| October | 77 | 45 | 34,384 | 29,380 | 1,052,095 |
| November | 62 | 39 | 13,219 | 13,690 | 355,818 |
| December | 50 | 21 | 4,145 | 1,318 | 150,064 |
| 1932 | | | | | |
| January | 79 | 37 | 11,105 | 4,648 | 117,298 |
| February | 50 | 30 | 31,140 | 28,691 | 417,966 |
| March ¹ | 54 | 31 | 32,386 | 12,081 | 690,021 |
| April ¹ | 67 | 47 | 18,950 | 22,114 | 617,010 |

¹ Preliminary figures subject to change.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives, by industry, the number of strikes beginning in February, March, and April, 1932, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN FEBRUARY, MARCH, AND APRIL, 1932

| Industrial group | Number of disputes beginning in— | | | Number of workers involved in disputes beginning in— | | |
|---|----------------------------------|-------|-------|--|--------|--------|
| | February | March | April | February | March | April |
| Bakers..... | | | 3 | | | 39 |
| Barbers..... | 1 | | 1 | 1,000 | | 1,000 |
| Brewery and soft drink workers..... | 1 | | | 17 | | |
| Building trades..... | 13 | 21 | 18 | 804 | 2,048 | 3,387 |
| Chauffeurs and teamsters..... | 1 | | 4 | 85 | | 586 |
| Clothing..... | 13 | 6 | 5 | 19,486 | 10,929 | 745 |
| Farm labor..... | | | 1 | | | 100 |
| Food workers..... | | | 1 | | | 25 |
| Furniture..... | 1 | 2 | 1 | 200 | 75 | 29 |
| Glass workers..... | 1 | 1 | | 75 | 57 | |
| Hospital workers..... | | | 1 | | | 41 |
| Hotel and restaurant workers..... | | 1 | | | 6 | |
| Laundry workers..... | 3 | | | 37 | | |
| Leather..... | 1 | | | 125 | | |
| Longshoremen and freight handlers..... | 1 | 1 | 2 | 150 | 10 | 2,500 |
| Lumber, timber, and millwork..... | | | 2 | | | 23 |
| Metal trades..... | 2 | 2 | 1 | 113 | 294 | 70 |
| Miners..... | 4 | 6 | 10 | 8,335 | 17,531 | 7,596 |
| Motion-picture operators, actors, and theatrical workers..... | 1 | 1 | 2 | 6 | 38 | 116 |
| Paper and paper-goods workers..... | | 1 | | | 18 | |
| Printing and publishing..... | 2 | 1 | | 23 | 14 | |
| Stone..... | | 1 | 2 | | 89 | 80 |
| Municipal workers..... | 1 | | | 60 | | |
| Textiles..... | 3 | 7 | 6 | 601 | 838 | 1,116 |
| Tobacco..... | | 1 | 1 | | 14 | 22 |
| Other occupations..... | 1 | 2 | 6 | 23 | 425 | 1,475 |
| Total..... | 50 | 54 | 67 | 31,140 | 32,386 | 18,950 |

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in April, 1932, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN APRIL, 1932, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIAL GROUPS

| Industrial group | Number of disputes beginning in April, 1932, involving— | | | | | |
|---|---|--------------------------|---------------------------|-----------------------------|-------------------------------|--------------------------------|
| | 6 and under 20 workers | 20 and under 100 workers | 100 and under 500 workers | 500 and under 1,000 workers | 1,000 and under 5,000 workers | 5,000 and under 10,000 workers |
| Bakers..... | 3 | | | | | |
| Barbers..... | | | | | 1 | |
| Building trades..... | 2 | 8 | 7 | | 1 | |
| Chauffeurs and teamsters..... | | 3 | 1 | | | |
| Clothing..... | | 2 | 3 | | | |
| Farm labor..... | | | 1 | | | |
| Food workers..... | | 1 | | | | |
| Furniture..... | | 1 | | | | |
| Hospital workers..... | | 1 | | | | |
| Longshoremen..... | | | | | 2 | |
| Lumber, timber, and mill work..... | 2 | | | | | |
| Metal trades..... | | 1 | | | | |
| Miners..... | | 4 | 3 | 1 | 1 | 1 |
| Motion-picture operators, actors, and theatrical workers..... | | 2 | | | | |
| Stone..... | | 2 | | | | |
| Textiles..... | | 4 | 1 | 1 | | |
| Tobacco..... | | 1 | | | | |
| Other occupations..... | 1 | 2 | 2 | 1 | | |
| Total..... | 8 | 32 | 18 | 3 | 5 | 1 |

In Table 4 are shown the number of industrial disputes ending in April, 1932, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN APRIL, 1932, BY INDUSTRIAL GROUPS AND CLASSIFIED DURATION

| Industrial group | Classified duration of strikes ending in April, 1932 | | | |
|--|--|-------------------------------------|--------------------------------|---------------------------------|
| | One-half month or less | Over one-half and less than 1 month | 1 month and less than 2 months | 2 months and less than 3 months |
| Bakers..... | 2 | | | |
| Barbers..... | 1 | | | |
| Building trades..... | 7 | 5 | 1 | 1 |
| Chauffeurs and teamsters..... | 4 | | | |
| Clothing..... | 3 | | | |
| Food workers..... | 1 | | | |
| Furniture..... | 1 | | | |
| Hospital workers..... | 1 | | | |
| Longshoremen and freight handlers..... | 1 | 1 | | |
| Lumber, timber, and mill work..... | 2 | | | |
| Metal trades..... | 2 | | | |
| Miners..... | 2 | 3 | | |
| Printing and publishing..... | | | 1 | |
| Stone..... | | 1 | | |
| Textiles..... | 6 | | | |
| Tobacco..... | 1 | | | |
| Other occupations..... | 2 | 1 | 1 | |
| Total..... | 36 | 11 | 3 | 1 |

Conciliation Work of the Department of Labor in April, 1932

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 54 labor disputes during April, 1932. These disputes affected a known total of 26,469 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

There were 17 cases involving the prevailing rate of wages law. In these cases it is not always possible to show the number involved, due to lack of information as to total number required before completion of construction.

On May 1, 1932, there were 37 strikes before the department for settlement and, in addition, 57 controversies which had not reached the strike stage. The total number of cases pending was 94.

LABOR DISPUTES HANDLED BY THE UNITED STATES CONCILIATION SERVICE DURING THE MONTH OF APRIL, 1932

| Company or industry and location | Nature of controversy | Craftsmen concerned | Cause of dispute | Present status and terms of settlement | Duration | | Workers involved | |
|--|-----------------------|---|---|--|-------------|--------------|------------------|------------|
| | | | | | Beginning | Ending | Directly | Indirectly |
| Plumbers and steam fitters, Rochester, N. Y. | Lockout..... | Plumbers and steam fitters. | Wages cut \$4 per day..... | Adjusted. Allowed \$9.40 per day; former rate \$12. | 1932 Apr. 1 | 1932 Apr. 26 | 400 | 100 |
| Veterans' hospital, Coatesville, Pa. | Controversy. | Plumbers, steam fitters, and bricklayers. | Prevailing-wage discussion..... | Adjusted. Bricklayers \$1.12½; plumbers and steam fitters 95c; laborers 30 to 70 cents per hour. | Mar. 20 | Apr. 22 | (1) | ---- |
| Rochester Ice & Cold Storage Utilities, Rochester, N. Y. | Strike..... | Drivers and helpers. | Wage cut proposed; renewal of agreement. | Adjusted. Union wages and agreement; drivers \$33, helpers \$24 per week. | Apr. 1 | Apr. 6 | 27 | 100 |
| Painters, Pittsburgh, Pa. | do..... | Painters..... | Proposed wage cut of 25 per cent. | Pending..... | Apr. 6 | ----- | 1,300 | 2,000 |
| Henry Disston & Sons, Tacony, Philadelphia, Pa. | do..... | Tool making. | Wage cuts..... | Adjusted. Allowed to retain rate in effect before strike. | Apr. 5 | Apr. 6 | 70 | ---- |
| Samuel Kaplin, Philadelphia, Pa. | do..... | Bakery..... | Proposed wage cut; one discharged. | Unclassified. Arbitrated matters in dispute. | do..... | Apr. 12 | 16 | ---- |
| Building, Cedar Rapids, Iowa. | do..... | Building..... | Proposed wage cut; refusal to recognize union. | Pending..... | Apr. 1 | ----- | 750 | ---- |
| Pittsburgh Ry. Co., Pittsburgh, Pa. | Controversy. | Employees..... | Proposed wage cut; changes in conditions. | Adjusted. Accepted 7½ per cent reduction; 2-year agreement. | Apr. 2 | ----- | 2,200 | ---- |
| B. & O. Storage House, Pittsburgh, Pa. | do..... | Building..... | Refusal of contractor to pay union wage. | Adjusted..... | Mar. 29 | ----- | 30 | ---- |
| Red Bird Baseball Park, Columbus, O. | do..... | Carpenters..... | Use of organized labor except carpenters. | Adjusted. All union crafts employed. | Apr. 4 | Apr. 15 | 50 | 250 |
| Dam No. 35, Ohio River | do..... | Building work on dam. | Prevailing wage not paid. | Pending..... | Mar. 29 | ----- | (1) | ---- |
| Post-office building, Lawrence, Mass. | do..... | Carpenters..... | Wages not paid for labor performed. | do..... | Apr. 6 | ----- | 5 | 16 |
| John Conlon Coal Co., Hudson, Pa. | Strike..... | Miners..... | Wage cut; working conditions..... | Adjusted. Withdrew cut. Conditions improved. | Apr. 1 | Apr. 24 | 320 | 5 |
| Memorial Craftsmen's Association, Philadelphia, Pa. | Controversy. | Stone and granite cutters. | Proposed wage cut from \$1.25 to \$1 per hour. | Pending..... | Apr. 6 | ----- | 150 | 150 |
| Geo. F. Lee Coal Co., Plymouth, Pa. | Strike..... | Miners..... | Wage cut; working conditions..... | Adjusted. Cut withdrawn. Men reinstated. | Apr. 1 | Apr. 26 | 275 | ---- |
| Post-office building, Taunton, Mass. | Controversy. | Building..... | Wages cut; contended work should be finished at contract rates. | Adjusted. Agreed to pay prevailing rate and use local labor mainly. | Apr. 9 | Apr. 12 | 28 | 24 |
| Electrical workers, Rochester, N. Y. | Strike..... | Electrical..... | Wages cut 20 per cent..... | Adjusted. Accepted 20 per cent cut to \$1.15½. | Apr. 13 | May 4 | 200 | 100 |
| Veterans' hospital, Biloxi, Miss. | Controversy. | Building..... | Prevailing-wage discussion..... | Pending..... | do..... | Apr. 27 | (1) | ---- |

LABOR DISPUTES HANDLED BY THE UNITED STATES CONCILIATION SERVICE DURING THE MONTH OF APRIL, 1932—Continued

| Company or industry and location | Nature of controversy | Craftsmen concerned | Cause of dispute | Present status and terms of settlement | Duration | | Workers involved | |
|---|-----------------------|-----------------------------------|---|---|--------------|---------|------------------|------------|
| | | | | | Beginning | Ending | Directly | Indirectly |
| Textile mills, Langley, Bath, and Olearwater, S. C. | Strike | Textile workers | Wage cut | Pending | 1932 Mar. 25 | 1932 | 58 | 1,542 |
| Post-office building, Oakland, Calif. | do | Marble setters | Wages cut from \$10 to \$8 per day | Adjusted. Returned at \$10 per day | Apr. 1 | Apr. 27 | 6 | 70 |
| Administration Building, Naval Base, Norfolk, Va., Virginia Engineering Co. | Controversy | Building and moving men | Prevailing wage | Pending | Apr. 12 | | 124 | |
| Norfolk, Va., Palmer Construction Co. | do | do | do | Adjusted | do | Apr. 25 | 40 | |
| Naval Base, Norfolk, Va., Killian Construction Co. | do | Building, repair, and moving | do | do | Apr. 10 | do | 40 | |
| Veterans' hospital, Fort Harrison, Mont. | do | Lathers and laborers | do | Pending | Apr. 16 | | (1) | |
| Building of wharf, San Francisco, Calif. | do | Pile drivers and wharf carpenters | Wages for different kinds of work | do | Apr. 23 | | 35 | |
| Post office and court house, Youngstown, Ohio | Threatened strike | Building | Alleged refusal of contractor to pay men. | Adjusted. Satisfactory agreement | Apr. 25 | Apr. 27 | 10 | 25 |
| Westerly Pink Granite Co. (Inc.), Westerly, R. I. | Controversy | Quarry workers | Renewal of wage and working agreement. | Adjusted. Wages and conditions fixed in 1-year agreement. | Apr. 15 | Apr. 25 | 50 | |
| Post office, Bay City, Mich. | do | Electricians | Prevailing-wage discussion and employment of union men. | Adjusted. Company agreed to employ union men at prevailing rates. | Apr. 12 | Apr. 20 | 3 | 5 |
| Narcotic Farm Hospital, Lexington, Ky. | do | Building | Prevailing wages | Adjusted. Bricklayers \$1.12½, electricians, plumbers and steam fitters \$1, carpenters 75 cents, and laborers 25 cents per hour. | Apr. 17 | May 11 | 150 | 50 |
| Total | | | | | | | 10,395 | 16,074 |

1 Not reported.

RECREATION

Community Recreation in the United States in 1931

THE annual report of the National Recreation Association for the year 1932¹ shows that, for the first time in the history of the recreation movement, the number of cities in which organized recreation service and facilities are reported exceeds one thousand. The number of cities reporting one or more playgrounds or indoor recreation centers conducted under leadership or a major recreation activity requiring regular supervision or leadership, such as a golf course, swimming pool, or bathing beach, was 1,010 in 1931 as compared with 502 ten years earlier. It is considered encouraging that during the past year when there has been a tendency to curtail public services the organized recreation movement has held its own. Although there has been no material increase in expenditures, the figures presented in the report indicate that the recreation movement has responded to the need presented by the great amount of leisure time resulting from unemployment by providing the added facilities, activities, and leadership without a corresponding increase in public expenditures.

The number of workers employed to give leadership for community recreation activities was reported by 834 cities to be 25,508. Of this total 13,053 were men and 12,455 women, the number of men exceeding the number of woman workers for the first time. Recreation workers were reported to be employed the year round by 258 cities, the number of full-time workers in these cities being 2,686. The salaries and wages for leadership and other services as reported by 793 cities amounted to \$15,668,137.71 and the total expenditures for recreation purposes reported by 917 cities was \$36,078,585.37.

A total of 13,324 separate play areas and centers under leadership was reported, of which 840 were opened in 1931 for the first time. The recreation facilities provided, for the cities furnishing the information, include 7,685 outdoor playgrounds, 639 recreation buildings, and 2,048 indoor recreation centers, part of these facilities being provided for colored residents. The total yearly or seasonal attendance of participants and spectators at outdoor playgrounds as reported by 565 cities was 222,619,926, while the attendance at indoor recreation centers in 144 cities was 13,769,039. These figures do not include the millions of persons using the athletic fields, bathing beaches, swimming pools, golf courses, summer camps, and other recreation areas.

The sources of support of the community recreation activities and facilities are mainly municipal and county funds, fees and charges, and private funds. The proportion supplied from municipal funds was larger than in any previous year for which reports are available,

¹ Recreation (New York), May, 1932, pp. 53-62.

HOUSING

Building Permits in Principal Cities of the United States, April, 1932

THE Bureau of Labor Statistics of the United States Department of Labor has received building permit reports from 351 identical cities of the United States having a population of 25,000 or over for the months of March and April, 1932, and from 343 identical cities having a population of 25,000 or over for the months of April, 1931, and April, 1932.

The cost figures as shown in the following tables apply to the cost of the buildings as estimated by the prospective builder on applying for his permit to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are shown. The States of Illinois, Massachusetts, New York, New Jersey, and Pennsylvania, through their departments of labor, are cooperating with the United States Bureau of Labor Statistics in the collection of these data.

Table 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 351 identical cities of the United States, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

| Geographic division | New residential buildings (estimated cost) | | | New nonresidential buildings (estimated cost) | | |
|---------------------------|--|---------------|--------------------|---|---------------|--------------------|
| | March, 1932 | April, 1932 | Per cent of change | March, 1932 | April, 1932 | Per cent of change |
| New England..... | \$1, 011, 173 | \$1, 411, 099 | +39. 6 | \$851, 845 | \$1, 187, 766 | +39. 4 |
| Middle Atlantic..... | 4, 995, 488 | 3, 416, 189 | -31. 6 | 3, 814, 569 | 11, 808, 233 | +209. 6 |
| East North Central..... | 1, 566, 066 | 2, 178, 313 | +39. 1 | 5, 466, 130 | 4, 184, 797 | -23. 4 |
| West North Central..... | 916, 100 | 1, 079, 198 | +17. 8 | 1, 065, 463 | 1, 374, 241 | +29. 0 |
| South Atlantic..... | 1, 674, 484 | 1, 194, 720 | -28. 7 | 2, 254, 164 | 6, 664, 684 | +195. 7 |
| South Central..... | 837, 907 | 886, 545 | +5. 8 | 4, 247, 673 | 2, 942, 421 | -30. 7 |
| Mountain and Pacific..... | 2, 917, 357 | 2, 417, 873 | -17. 1 | 4, 134, 047 | 1, 986, 684 | -51. 9 |
| Total..... | 13, 918, 575 | 12, 583, 937 | -9. 6 | 21, 833, 891 | 30, 148, 826 | +38. 1 |

| Geographic division | Additions, alterations, and repairs (estimated cost) | | | Total construction (estimated cost) | | | Number of cities |
|---------------------------|--|---------------|--------------------|-------------------------------------|---------------|--------------------|------------------|
| | March, 1932 | April, 1932 | Per cent of change | March, 1932 | April, 1932 | Per cent of change | |
| New England..... | \$1, 189, 332 | \$1, 930, 386 | +63. 1 | \$3, 052, 350 | \$4, 538, 251 | +48. 7 | 53 |
| Middle Atlantic..... | 3, 148, 476 | 3, 796, 744 | +20. 6 | 11, 958, 533 | 19, 021, 166 | +59. 1 | 70 |
| East North Central..... | 1, 558, 510 | 1, 923, 473 | +23. 4 | 8, 590, 706 | 8, 286, 583 | -3. 5 | 92 |
| West North Central..... | 610, 887 | 685, 698 | +12. 2 | 2, 592, 450 | 3, 139, 137 | +21. 1 | 25 |
| South Atlantic..... | 1, 142, 332 | 1, 353, 818 | +18. 5 | 5, 070, 980 | 9, 213, 222 | +81. 7 | 38 |
| South Central..... | 715, 172 | 690, 261 | -3. 5 | 5, 800, 752 | 4, 519, 227 | -22. 1 | 35 |
| Mountain and Pacific..... | 1, 550, 940 | 1, 367, 144 | -11. 9 | 8, 602, 344 | 5, 771, 701 | -32. 9 | 38 |
| Total..... | 9, 915, 649 | 11, 756, 524 | +18. 6 | 45, 668, 115 | 64, 489, 287 | +19. 3 | 351 |

The total cost of building operations for which permits were issued during the month of April, 1932, in these 351 cities, was \$54,489,287 or 19.3 per cent greater than the estimated cost of the total building operations for which permits were issued during March. Increases in indicated expenditures for total construction were shown in four of the geographic divisions. These increases ranged from a low of 21.1 per cent in the West North Central States to a high of 81.7 per cent in the South Atlantic States. Decreases were shown in three geographic divisions.

There was a decrease of 9.6 per cent in the estimated cost of residential buildings, comparing permits issued in these 351 cities during the months of March and April. Increases were shown in four geographic divisions and decreases in three.

Indicated expenditures for new nonresidential buildings increased 38.1 per cent comparing April permits with March permits. The increase in the Middle Atlantic Division for this class of structure was 209.6 per cent.

Indicated expenditures for additions, alterations, and repairs during April were 18.6 per cent greater than during March. Five of the seven geographic divisions registered increases in this class of building.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 351 identical cities of the United States, by geographic divisions.

TABLE 2.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

| Geographic division | New residential buildings | | New nonresidential buildings | | Additions, alterations, and repairs | | Total construction | |
|---------------------------|---------------------------|-------------|------------------------------|-------------|-------------------------------------|-------------|--------------------|-------------|
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| New England..... | 187 | 253 | 434 | 701 | 1,584 | 2,392 | 2,205 | 3,346 |
| Middle Atlantic..... | 643 | 501 | 1,139 | 1,687 | 3,429 | 4,891 | 5,211 | 7,079 |
| East North Central..... | 272 | 372 | 939 | 1,865 | 2,295 | 3,655 | 3,506 | 5,892 |
| West North Central..... | 225 | 285 | 490 | 1,093 | 937 | 1,708 | 1,652 | 3,086 |
| South Atlantic..... | 387 | 267 | 559 | 661 | 2,478 | 2,953 | 3,424 | 3,881 |
| South Central..... | 320 | 357 | 535 | 511 | 1,830 | 2,067 | 2,685 | 2,935 |
| Mountain and Pacific..... | 777 | 651 | 1,371 | 1,191 | 3,832 | 3,574 | 5,980 | 5,416 |
| Total..... | 2,811 | 2,686 | 5,467 | 7,709 | 16,385 | 21,240 | 24,663 | 31,635 |
| Per cent of change..... | | -4.4 | | +41.0 | | +29.6 | | +28.3 |

In these 351 cities permits were issued for 31,635 building projects of all kinds during the month of April. This is an increase of 28.3 per cent over the number of projects for which permits were issued during March. Increases in the total number of building operations were shown in all geographic divisions except the Mountain and Pacific. The number of new residential buildings for which permits were issued in these 351 cities decreased 4.4 per cent comparing April permits with March permits. Four geographic divisions registered increases in the number of new residential buildings and three, decreases. The number of new nonresidential buildings increased 41.0 per cent comparing April permits with March permits. Increases were shown in all geographic divisions except the South Central and

the Mountain and Pacific. The number of additions, alterations, and repairs increased 29.6 per cent in April as compared with March. Six of the seven geographic divisions registered increases in the number of repairs.

Table 3 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the estimated cost of such dwellings for which permits were issued in 351 identical cities during March and April, 1932, by geographic divisions.

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 351 IDENTICAL CITIES IN MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

| Geographic division | 1-family dwellings | | | | 2-family dwellings | | | |
|-------------------------|-----------------------|---------------|-----------------------|-------------|--|---------------|-----------------------|-------------|
| | Estimated cost | | Families provided for | | Estimated cost | | Families provided for | |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| New England..... | \$850, 323 | \$1, 128, 499 | 166 | 221 | \$115, 850 | \$200, 800 | 32 | 59 |
| Middle Atlantic..... | 2, 441, 963 | 2, 246, 818 | 493 | 431 | 1, 038, 525 | 425, 871 | 263 | 101 |
| East North Central.... | 1, 116, 999 | 1, 500, 329 | 238 | 351 | 118, 800 | 100, 200 | 35 | 31 |
| West North Central.... | 754, 680 | 976, 048 | 207 | 273 | 91, 420 | 73, 150 | 28 | 22 |
| South Atlantic..... | 1, 625, 924 | 1, 052, 970 | 373 | 246 | 15, 560 | 48, 100 | 17 | 22 |
| South Central..... | 710, 693 | 750, 229 | 292 | 333 | 88, 214 | 68, 975 | 41 | 39 |
| Mountain and Pacific.. | 2, 295, 095 | 2, 049, 847 | 695 | 597 | 215, 912 | 212, 376 | 88 | 80 |
| Total..... | 9, 795, 677 | 9, 764, 740 | 2, 464 | 2, 452 | 1, 684, 281 | 1, 129, 472 | 504 | 354 |
| Per cent of change..... | | -0.3 | | -0.5 | | -32.9 | | -29.8 |
| Geographic division | Multifamily dwellings | | | | Total, all kinds of housekeeping dwellings | | | |
| | Estimated cost | | Families provided for | | Estimated cost | | Families provided for | |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| New England..... | \$45, 000 | \$81, 800 | 19 | 44 | \$1, 011, 173 | \$1, 411, 099 | 217 | 324 |
| Middle Atlantic..... | 1, 215, 000 | 637, 500 | 353 | 197 | 4, 695, 488 | 3, 310, 189 | 1, 109 | 729 |
| East North Central.... | 323, 500 | 22, 000 | 89 | 14 | 1, 559, 299 | 1, 682, 529 | 362 | 396 |
| West North Central.... | 24, 000 | 30, 000 | 9 | 8 | 870, 100 | 1, 079, 198 | 244 | 303 |
| South Atlantic..... | 33, 000 | 77, 000 | 16 | 39 | 1, 674, 484 | 1, 178, 070 | 406 | 307 |
| South Central..... | 39, 000 | 35, 100 | 26 | 14 | 837, 907 | 854, 304 | 359 | 386 |
| Mountain and Pacific.. | 406, 350 | 155, 650 | 202 | 89 | 2, 917, 357 | 2, 417, 873 | 985 | 766 |
| Total..... | 2, 085, 850 | 1, 039, 050 | 714 | 405 | 13, 565, 808 | 11, 933, 262 | 3, 682 | 3, 211 |
| Per cent of change..... | | -50.2 | | -43.3 | | -22.0 | | -12.8 |

During April, 1932, there was a decrease of 22 per cent in the indicated expenditures for housekeeping dwellings comparing permits issued in these 351 identical cities. The number of families provided for in these dwellings decreased 12.8 per cent as compared with March. Four of the seven geographic divisions showed increases in the total number of families provided for comparing April permits with March permits.

There was a decrease of three-tenths of 1 per cent in the estimated cost of 1-family dwellings and a decrease of one-half of 1 per cent in the number of families provided for in 1-family dwellings. Four of the seven geographic divisions showed increases in expenditures for 1-family dwellings and three showed decreases in the number of families provided for in this class of dwelling.

Indicated expenditures for 2-family dwellings decreased 32.9 per cent and the number of family dwelling units provided decreased 29.8 per cent comparing April permits with March permits. Decreases in expenditures for 2-family dwellings were shown in all divisions except the New England and the South Atlantic. These two divi-

sions were also the only ones showing an increase in the number of families provided for in 2-family dwellings.

Indicated expenditures for apartment houses decreased 50.2 per cent and the number of family dwelling units provided for in apartment houses decreased 43.3 per cent in these 351 cities, comparing April permits with March permits.

Table 4 shows the index number of families provided for and the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total building operations.

TABLE 4.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES, APRIL, 1930, APRIL, 1931, AND JANUARY, FEBRUARY, MARCH, AND APRIL, 1932

[Monthly average, 1929=100]

| Month | Families provided for | Estimated cost of— | | | |
|-------------------|-----------------------|---------------------------|-------------------------------|-------------------------------------|---------------------------|
| | | New residential buildings | New non-residential buildings | Additions, alterations, and repairs | Total building operations |
| April..... 1930 | 62.0 | 51.0 | 100.1 | 81.8 | 73.8 |
| April..... 1931 | 64.6 | 48.6 | 73.9 | 65.2 | 60.6 |
| January..... 1932 | 14.4 | 10.2 | 25.0 | 25.8 | 18.2 |
| February..... | 13.0 | 9.1 | 16.5 | 26.7 | 14.3 |
| March..... | 15.4 | 10.7 | 18.1 | 27.0 | 15.7 |
| April..... | 13.4 | 9.7 | 25.0 | 32.0 | 18.8 |

There was a slight increase in the index number of total building operations in April, 1932, as compared with March, 1932, but a large decrease as compared with April, 1931. The index number of families provided for and the index number of new residential buildings were lower than for March. The index number of new nonresidential buildings, while higher than for March, 1932, was much lower than for April, 1931.

The charts on pages 1378 and 1379 show in graphic form the information contained in Table 4.

Table 5 shows the number and value of contracts awarded for public buildings by the different agencies of the United States Government during the months of April, 1931, and March and April, 1932

TABLE 5.—CONTRACTS LET FOR PUBLIC BUILDINGS BY DIFFERENT AGENCIES OF THE UNITED STATES GOVERNMENT DURING APRIL, 1931, AND MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

| Geographic division | April, 1931 | | March, 1932 | | April, 1932 ¹ | |
|---------------------------|-------------|-----------|-------------|------------|--------------------------|------------|
| | Number | Cost | Number | Cost | Number | Cost |
| New England..... | 8 | \$582,288 | 6 | \$341,858 | 14 | \$545,711 |
| Middle Atlantic..... | 15 | 1,168,840 | 17 | 799,339 | 20 | 416,660 |
| East North Central..... | 9 | 199,958 | 22 | 4,632,359 | 26 | 1,640,395 |
| West North Central..... | 6 | 511,464 | 11 | 741,040 | 5 | 209,050 |
| South Atlantic..... | 23 | 1,873,931 | 32 | 1,399,063 | 41 | 6,294,785 |
| South Central..... | 18 | 2,718,846 | 20 | 1,850,839 | 19 | 1,096,578 |
| Mountain and Pacific..... | 19 | 1,144,497 | 24 | 1,490,842 | 22 | 1,535,156 |
| Total..... | 98 | 8,199,824 | 132 | 11,255,340 | 147 | 11,738,335 |

¹ Subject to revision.

During April, 1932, contracts were awarded by various Federal agencies for 147 building operations to cost \$11,738,335. This expenditure was higher than for either March, 1932, or April, 1931.

Table 6 shows the value of contracts awarded by the different State governments for public buildings during the months of April, 1931, and March and April, 1932, by geographic divisions.

TABLE 6.—CONTRACTS AWARDED FOR PUBLIC BUILDINGS BY THE DIFFERENT STATE GOVERNMENTS DURING APRIL, 1931, AND MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

| Geographic division | April, 1931 | March, 1932 | April, 1932 ¹ |
|---------------------------|-------------|-------------|--------------------------|
| New England..... | \$743,304 | \$219,794 | \$192,037 |
| Middle Atlantic..... | 10,658,763 | 1,043,741 | 762,943 |
| East North Central..... | 135,448 | 373,438 | 587,066 |
| West North Central..... | 10,141 | 44,277 | 124,666 |
| South Atlantic..... | 166,292 | 448,391 | 121,703 |
| South Central..... | 15,053 | 354,294 | 686,580 |
| Mountain and Pacific..... | 459,421 | 221,280 | 214,118 |
| Total..... | 12,188,422 | 2,705,215 | 2,689,113 |

¹ Subject to revision.

Contracts awarded by various State governments during April, 1932, totaled \$2,689,113. This was slightly less than the value of contracts awarded during March, 1932, and slightly more than one-fifth of the value of contracts awarded by the State governments during April, 1931.

Table 7 shows the estimated cost of new residential building, of new nonresidential building, of additions, alterations, and repairs, and of total building construction in 343 identical cities of the United States having a population of 25,000 or over for the months of April, 1931, and April, 1932, by geographic divisions.

TABLE 7.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 343 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN APRIL, 1931, AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

| Geographic division | New residential buildings (estimated cost) | | | New nonresidential buildings (estimated cost) | | |
|---------------------------|--|-------------|--------------------|---|-------------|--------------------|
| | April, 1931 | April, 1932 | Per cent of change | April, 1931 | April, 1932 | Per cent of change |
| New England..... | \$4,115,520 | \$1,303,187 | -68.3 | \$3,289,394 | \$1,179,551 | -64.1 |
| Middle Atlantic..... | 28,807,325 | 3,380,289 | -88.3 | 44,511,832 | 11,790,898 | -73.5 |
| East North Central..... | 7,719,048 | 2,177,313 | -71.8 | 11,386,922 | 4,184,352 | -63.3 |
| West North Central..... | 2,740,187 | 1,079,198 | -60.6 | 8,494,267 | 1,374,241 | -83.8 |
| South Atlantic..... | 6,384,645 | 1,191,320 | -81.3 | 1,849,034 | 6,660,514 | +260.2 |
| South Central..... | 3,439,068 | 886,545 | -74.2 | 6,545,872 | 2,942,421 | -55.0 |
| Mountain and Pacific..... | 7,064,859 | 2,396,623 | -66.1 | 4,503,053 | 1,985,644 | -55.9 |
| Total..... | 60,270,652 | 12,414,475 | -79.4 | 80,580,374 | 30,117,621 | -62.6 |

TABLE 7.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 343 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN APRIL, 1931, AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS—Continued

| Geographic division | Additions, alterations, and repairs (estimated cost) | | | Total construction (estimated cost) | | | Number of cities |
|---------------------------|--|---------------|--------------------|-------------------------------------|---------------|--------------------|------------------|
| | April, 1931 | April, 1932 | Per cent of change | April, 1931 | April, 1932 | Per cent of change | |
| New England..... | \$1, 850, 052 | \$1, 926, 290 | +4. 1 | \$9, 254, 966 | \$4, 409, 028 | -52. 4 | 51 |
| Middle Atlantic..... | 8, 799, 709 | 3, 779, 267 | -57. 1 | 82, 118, 866 | 18, 950, 454 | -76. 9 | 68 |
| East North Central..... | 4, 598, 153 | 1, 922, 378 | -58. 2 | 23, 704, 123 | 8, 284, 043 | -65. 1 | 91 |
| West North Central..... | 943, 537 | 685, 698 | -27. 3 | 12, 177, 991 | 3, 139, 137 | -74. 2 | 25 |
| South Atlantic..... | 1, 960, 897 | 1, 353, 818 | -31. 0 | 10, 194, 576 | 9, 205, 652 | -9. 7 | 37 |
| South Central..... | 1, 095, 539 | 690, 361 | -37. 0 | 11, 080, 479 | 4, 519, 327 | -59. 2 | 35 |
| Mountain and Pacific..... | 2, 255, 515 | 1, 356, 199 | -39. 9 | 13, 823, 427 | 5, 738, 466 | -58. 5 | 36 |
| Total..... | 21, 503, 402 | 11, 714, 011 | -45. 5 | 162, 354, 428 | 54, 246, 107 | -66. 6 | 343 |

New residential buildings decreased 79.4 per cent in estimated costs comparing permits issued in 343 identical cities in April, 1932, with April, 1931. All geographic divisions showed decreases in residential building comparing these two periods. The decreases ranged from 60.6 per cent in the West North Central States to 88.3 per cent in the Middle Atlantic States.

Indicated expenditures for new nonresidential building decreased 62.6 per cent comparing April, 1932, with April, 1931. Six of the seven geographic divisions showed decreases in expenditures for this class of structure. In the South Atlantic States, however, there was an increase of 260.2 per cent.

Indicated expenditures for additions, alterations, and repairs decreased 45.5 per cent in April, 1932, as compared with April, 1931. The one geographic division showing an increase in the expenditures for repairs was New England.

Total construction decreased 66.6 per cent, comparing April, 1932, with April, 1931. All geographic divisions showed decreases in indicated expenditure for total building construction.

Table 8 shows the number of new residential buildings, of new non-residential buildings, of additions, alterations, and repairs, and of total building operations in 343 identical cities having a population of 25,000 or over for April, 1931, and for April, 1932.

TABLE 8.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 343 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN APRIL, 1931, AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

| Geographic division | New residential buildings | | New nonresidential buildings | | Additions, alterations, and repairs | | Total construction | |
|---------------------------|---------------------------|-------------|------------------------------|-------------|-------------------------------------|-------------|--------------------|-------------|
| | April, 1931 | April, 1932 | April, 1931 | April, 1932 | April, 1931 | April, 1932 | April, 1931 | April, 1932 |
| New England..... | 546 | 240 | 1, 177 | 678 | 2, 679 | 2, 359 | 4, 402 | 3, 277 |
| Middle Atlantic..... | 2, 352 | 495 | 3, 324 | 1, 664 | 6, 035 | 4, 860 | 11, 711 | 7, 019 |
| East North Central..... | 1, 303 | 371 | 3, 511 | 1, 861 | 5, 447 | 3, 649 | 10, 261 | 5, 881 |
| West North Central..... | 602 | 285 | 1, 371 | 1, 093 | 2, 111 | 1, 708 | 4, 084 | 3, 086 |
| South Atlantic..... | 1, 227 | 265 | 1, 574 | 657 | 3, 431 | 2, 953 | 6, 232 | 3, 875 |
| South Central..... | 828 | 357 | 826 | 511 | 2, 307 | 2, 067 | 3, 961 | 2, 935 |
| Mountain and Pacific..... | 1, 475 | 641 | 1, 752 | 1, 186 | 4, 069 | 3, 540 | 7, 296 | 5, 367 |
| Total..... | 8, 333 | 2, 654 | 13, 535 | 7, 650 | 26, 079 | 21, 136 | 47, 947 | 31, 440 |
| Per cent of change..... | | -68. 2 | | -43. 5 | | -19. 0 | | -34. 4 |

Decreases were shown in the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in these 343 cities, comparing April, 1932, with April, 1931.

Table 9 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the cost of such dwellings for which permits were issued in 343 identical cities during April, 1931, and April, 1932, by geographic divisions.

TABLE 9.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 343 IDENTICAL CITIES IN APRIL, 1931, AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

| Geographic division | 1-family dwellings | | | | 2-family dwellings | | | |
|---------------------------|-----------------------|-------------|-----------------------|-------------|--|-------------|-----------------------|-------------|
| | Estimated cost | | Families provided for | | Estimated cost | | Families provided for | |
| | April, 1931 | April, 1932 | April, 1931 | April, 1932 | April, 1931 | April, 1932 | April, 1931 | April, 1932 |
| New England..... | \$2,687,120 | \$1,020,987 | 438 | 208 | \$704,400 | \$200,800 | 182 | 50 |
| Middle Atlantic..... | 10,918,428 | 2,210,918 | 1,830 | 425 | 2,767,235 | 425,871 | 782 | 101 |
| East North Central..... | 6,216,198 | 1,559,329 | 1,185 | 350 | 749,850 | 100,200 | 171 | 31 |
| West North Central..... | 2,192,587 | 976,048 | 560 | 273 | 180,100 | 73,150 | 43 | 22 |
| South Atlantic..... | 5,423,395 | 1,049,570 | 1,175 | 244 | 94,750 | 48,100 | 39 | 22 |
| South Central..... | 2,712,278 | 750,229 | 721 | 333 | 482,955 | 68,975 | 162 | 39 |
| Mountain and Pacific..... | 5,216,459 | 2,028,597 | 1,337 | 587 | 551,150 | 212,376 | 173 | 80 |
| Total..... | 35,366,465 | 9,595,678 | 7,246 | 2,420 | 5,530,440 | 1,129,472 | 1,552 | 354 |
| Per cent of change..... | | -72.9 | | -66.6 | | -79.6 | | -77.2 |
| Geographic division | Multifamily dwellings | | | | Total, all kinds of housekeeping dwellings | | | |
| | Estimated cost | | Families provided for | | Estimated cost | | Families provided for | |
| | April, 1931 | April, 1932 | April, 1931 | April, 1932 | April, 1931 | April, 1932 | April, 1931 | April, 1932 |
| New England..... | \$639,000 | \$81,800 | 195 | 44 | \$4,030,520 | \$1,303,587 | 815 | 311 |
| Middle Atlantic..... | 14,736,662 | 637,500 | 4,089 | 197 | 28,422,325 | 3,274,289 | 6,701 | 723 |
| East North Central..... | 753,000 | 22,000 | 156 | 14 | 7,719,048 | 1,681,529 | 1,512 | 395 |
| West North Central..... | 322,500 | 30,000 | 135 | 8 | 2,695,187 | 1,079,198 | 738 | 303 |
| South Atlantic..... | 604,500 | 77,000 | 222 | 39 | 6,122,645 | 1,174,670 | 1,436 | 305 |
| South Central..... | 243,835 | 35,100 | 125 | 14 | 3,439,068 | 854,304 | 1,008 | 386 |
| Mountain and Pacific..... | 1,241,250 | 155,650 | 531 | 89 | 7,008,859 | 2,396,623 | 2,041 | 756 |
| Total..... | 18,540,747 | 1,039,050 | 5,453 | 405 | 59,437,652 | 11,764,200 | 14,251 | 3,179 |
| Per cent of change..... | | -44.0 | | -92.6 | | -80.2 | | -77.7 |

There were decreases in the estimated cost and in the number of family dwelling units provided for in each class of housekeeping dwellings, comparing April, 1932, with April, 1931, in these 343 cities. The total number of families provided for in new housekeeping dwellings in April, 1932, was 3,179, which is 77.7 per cent less than the number provided for during April, 1931.

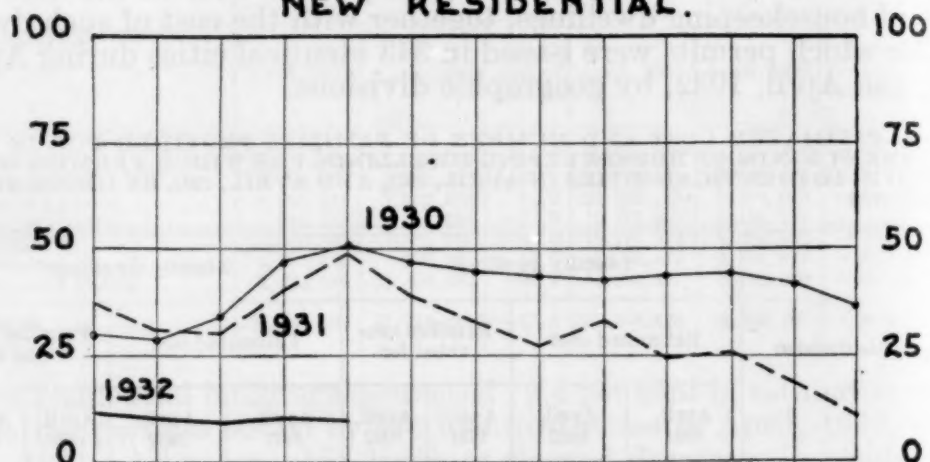
Table 10 shows the estimated cost of new residential buildings, of new nonresidential buildings, of total building operations, together with the number of family dwelling units provided for in new buildings for the 351 identical cities from which reports were received for March, 1932, and April, 1932.

No reports were received from New London (Conn.), Bangor (Me.), Burlington (Vt.), Atlantic City (N. J.), Butler (Pa.), Anderson (Ind.), Pontiac and Port Huron (Mich.), Newark (Ohio), West Palm Beach (Fla.), Savannah (Ga.), Lynchburg (Va.), Fort Smith (Ark.), Ashland (Ky.), Meridian (Miss.), Muskogee (Okla.), Brownsville and Port Arthur (Tex.), and San Bernardino (Calif.).

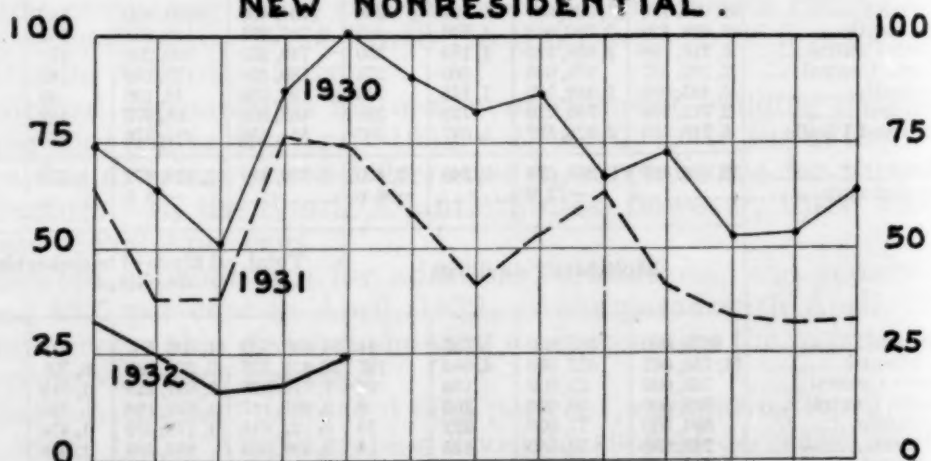
INDEXES OF COST OF BUILDING OPERATIONS.

MONTHLY AVERAGE 1929 = 100.

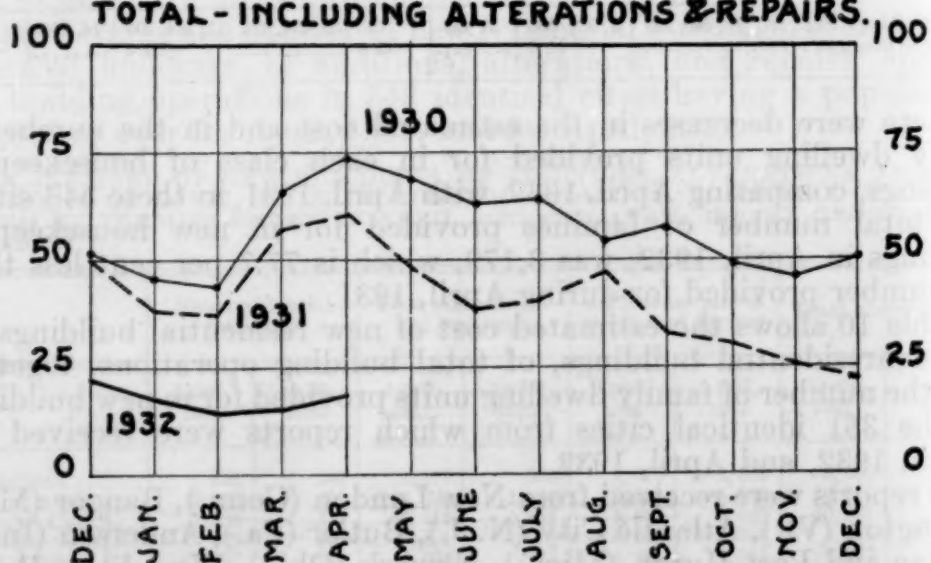
NEW RESIDENTIAL.



NEW NONRESIDENTIAL.



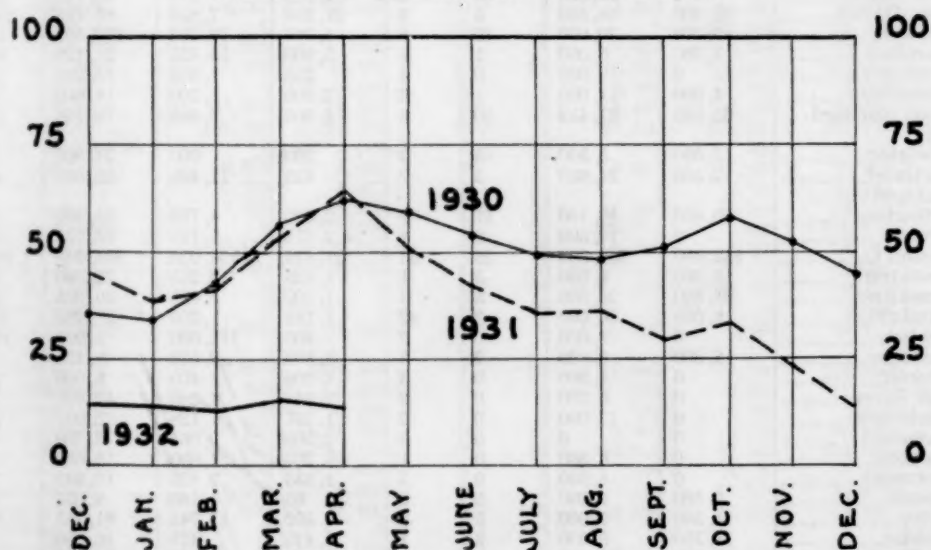
TOTAL-INCLUDING ALTERATIONS & REPAIRS.



Permits were issued for the following important building projects during the month of April, 1932: In the Borough of Manhattan for a theater to cost \$4,500,000; in Philadelphia for two schools to cost nearly \$3,500,000; in Grand Rapids, Mich., for a public library to cost nearly \$900,000; in Baltimore for a gas holder for a public utilities corporation to cost \$440,000; in Austin, Tex., for an office building for the State Highway Department to cost over \$400,000; in Dallas for a school building to cost \$300,000; in San Francisco for two school buildings to cost \$325,000.

INDEXES OF FAMILIES PROVIDED FOR.

MONTHLY AVERAGE 1929 = 100.



R/

Contracts were awarded by the Supervising Architect, Treasury Department, for a post office at Terre Haute to cost \$439,000; for a building at the marine hospital in Detroit to cost nearly \$400,000; in Washington, D. C., for an addition to the Library of Congress to cost \$1,123,000 and for an extension and remodeling the post-office building to cost nearly \$3,000,000; in Louisville, Ky., for a marine hospital to cost nearly \$300,000; and in Baton Rouge, La., for a post office to cost over \$300,000.

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932

New England States

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|---------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | | | | |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| Connecticut: | | | | | | | | |
| Bridgeport..... | \$64,450 | \$67,600 | 18 | 20 | \$6,210 | \$19,569 | \$82,025 | \$100,287 |
| Bristol..... | 0 | 9,500 | 0 | 2 | 0 | 600 | 2,476 | 17,494 |
| Greenwich..... | 3,000 | 67,500 | 1 | 4 | 45,400 | 17,750 | 81,415 | 95,524 |
| Hartford..... | 29,500 | 20,150 | 8 | 4 | 18,235 | 12,142 | 110,709 | 62,745 |
| Meriden..... | 8,000 | 3,400 | 2 | 1 | 6,463 | 1,450 | 19,138 | 12,320 |
| New Britain..... | 0 | 37,000 | 0 | 5 | 12,975 | 635 | 20,745 | 50,249 |
| New Haven..... | 33,300 | 48,500 | 5 | 9 | 27,210 | 7,850 | 85,495 | 114,420 |
| Norwalk..... | 82,700 | 39,900 | 12 | 8 | 4,760 | 10,250 | 100,503 | 67,195 |
| Stamford..... | 7,500 | 6,000 | 1 | 1 | 5,900 | 55,425 | 21,120 | 86,870 |
| Torrington..... | 0 | 12,000 | 0 | 4 | 235 | 1,315 | 13,265 | 17,190 |
| Waterbury..... | 4,000 | 11,000 | 1 | 3 | 2,000 | 1,200 | 14,800 | 21,435 |
| West Hartford..... | 65,023 | 67,412 | 10 | 6 | 4,005 | 3,485 | 73,746 | 81,078 |
| Maine: | | | | | | | | |
| Lewiston..... | 12,000 | 5,300 | 5 | 2 | 200 | 900 | 24,200 | 7,200 |
| Portland..... | 12,500 | 24,800 | 3 | 7 | 435 | 11,400 | 59,067 | 48,718 |
| Massachusetts: | | | | | | | | |
| Arlington..... | 60,400 | 40,100 | 11 | 7 | 2,600 | 4,730 | 68,800 | 48,145 |
| Beverly..... | 0 | 10,500 | 0 | 2 | 2,975 | 1,125 | 13,775 | 22,935 |
| Boston ¹ | 142,000 | 231,000 | 28 | 53 | 331,114 | 304,025 | 863,243 | 1,509,574 |
| Brockton..... | 15,300 | 4,000 | 3 | 1 | 1,825 | 3,265 | 22,380 | 24,907 |
| Brookline..... | 27,500 | 29,500 | 3 | 3 | 1,700 | 3,495 | 36,905 | 50,090 |
| Cambridge..... | 8,000 | 80,000 | 2 | 42 | 1,175 | 1,250 | 28,285 | 272,061 |
| Chelsea..... | 0 | 7,000 | 0 | 2 | 400 | 173,000 | 5,981 | 182,215 |
| Chicopee..... | 2,500 | 8,800 | 2 | 3 | 1,500 | 2,510 | 8,150 | 19,160 |
| Everett..... | 0 | 7,500 | 0 | 3 | 4,600 | 490 | 8,000 | 20,890 |
| Fall River..... | 0 | 5,300 | 0 | 2 | 2,942 | 4,680 | 52,927 | 21,169 |
| Fitchburg..... | 0 | 12,000 | 0 | 2 | 1,181 | 1,128 | 2,931 | 27,593 |
| Haverhill..... | 0 | 0 | 0 | 0 | 2,500 | 2,065 | 6,200 | 11,760 |
| Holyoke..... | 0 | 6,500 | 0 | 1 | 8,200 | 7,600 | 19,050 | 34,850 |
| Lawrence..... | 0 | 8,500 | 0 | 2 | 1,535 | 2,425 | 10,935 | 28,925 |
| Lowell..... | 2,500 | 9,000 | 2 | 2 | 85 | 1,160 | 8,635 | 21,760 |
| Lynn..... | 14,300 | 9,000 | 3 | 3 | 550 | 11,745 | 61,785 | 50,810 |
| Malden..... | 11,300 | 5,000 | 3 | 1 | 1,415 | 425 | 16,880 | 13,310 |
| Medford..... | 25,800 | 26,500 | 6 | 8 | 1,800 | 2,000 | 36,565 | 42,825 |
| New Bedford..... | 0 | 0 | 0 | 0 | 4,150 | 30,100 | 11,000 | 42,175 |
| Newton..... | 58,300 | 62,300 | 8 | 10 | 1,700 | 6,965 | 89,540 | 83,345 |
| Pittsfield..... | 10,000 | 19,400 | 2 | 5 | 1,725 | 7,250 | 16,375 | 37,625 |
| Quincy..... | 10,400 | 24,600 | 3 | 7 | 19,425 | 10,813 | 48,387 | 59,757 |
| Revere..... | 0 | 8,000 | 0 | 3 | 3,850 | 1,835 | 23,100 | 57,885 |
| Salem..... | 17,500 | 14,000 | 3 | 2 | 1,100 | 13,975 | 66,960 | 49,890 |
| Somerville..... | 0 | 9,700 | 0 | 3 | 49,575 | 178,902 | 54,970 | 212,512 |
| Springfield..... | 13,600 | 51,750 | 5 | 12 | 20,875 | 14,350 | 64,880 | 75,161 |
| Taunton..... | 4,500 | 1,750 | 2 | 2 | 176,035 | 18,700 | 183,629 | 25,320 |
| Waltham..... | 13,000 | 8,400 | 8 | 3 | 850 | 15,925 | 14,400 | 30,622 |
| Watertown..... | 10,000 | 11,500 | 2 | 2 | 665 | 49,525 | 11,840 | 69,225 |
| Worcester..... | 49,100 | 83,600 | 9 | 18 | 3,725 | 28,250 | 82,949 | 131,785 |
| New Hampshire: | | | | | | | | |
| Concord..... | 7,000 | 16,737 | 2 | 5 | 600 | 1,262 | 9,500 | 22,499 |
| Manchester..... | 8,500 | 20,550 | 3 | 9 | 1,130 | 3,985 | 24,215 | 40,842 |
| Rhode Island: | | | | | | | | |
| Central Falls..... | 0 | 0 | 0 | 0 | 6,000 | 100 | 10,870 | 2,775 |
| Cranston..... | 33,600 | 24,400 | 9 | 6 | 4,945 | 7,290 | 42,045 | 33,935 |
| East Providence..... | 16,100 | 14,500 | 4 | 4 | 1,750 | 6,490 | 22,204 | 28,177 |
| Newport..... | 5,500 | 21,500 | 1 | 4 | 21,480 | 5,550 | 30,295 | 34,177 |
| Pawtucket..... | 23,650 | 4,350 | 8 | 2 | 12,510 | 5,100 | 45,330 | 14,520 |
| Providence..... | 98,850 | 92,800 | 19 | 13 | 16,975 | 109,435 | 214,840 | 294,385 |
| Woonsocket..... | 0 | 1,000 | 0 | 1 | 55 | 875 | 4,890 | 5,935 |
| Total..... | 1,011,173 | 1,411,099 | 217 | 324 | 851,845 | 1,187,766 | 3,052,350 | 4,538,251 |
| Per cent of change..... | | +39.6 | | +49.3 | | +39.4 | | +48.7 |

Middle Atlantic States

| | | | | | | | | |
|--------------------|---------|---------|----|---|---------|----------|---------|----------|
| New Jersey: | | | | | | | | |
| Bayonne..... | 0 | 0 | 0 | 0 | \$1,425 | \$12,180 | \$9,845 | \$29,843 |
| Belleville..... | \$6,500 | \$3,000 | 2 | 1 | 3,450 | 2,600 | 13,435 | 10,005 |
| Bloomfield..... | 140,000 | 0 | 30 | 0 | 7,000 | 2,500 | 148,500 | 5,000 |

¹ Applications filed.

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

Middle Atlantic States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | | | | |
| New Jersey—Contd. | | | | | | | | |
| Camden | 0 | 0 | 0 | 0 | \$15,075 | \$81,345 | \$22,562 | \$81,345 |
| Clifton | \$50,500 | 0 | 13 | 0 | 3,225 | 6,825 | 59,675 | 15,155 |
| East Orange | 8,000 | \$17,500 | 2 | 3 | 154,656 | 15,100 | 186,623 | 61,705 |
| Elizabeth | 31,000 | 13,000 | 4 | 2 | 17,600 | 9,500 | 48,600 | 22,500 |
| Garfield | 12,500 | 2,500 | 2 | 1 | 10,100 | 2,075 | 24,200 | 10,175 |
| Hackensack | 4,500 | 11,000 | 1 | 2 | 4,865 | 14,695 | 17,821 | 39,630 |
| Hoboken | 0 | 0 | 0 | 0 | 0 | 200,000 | 15,990 | 210,149 |
| Irvington | 11,000 | 17,800 | 4 | 5 | 8,600 | 8,090 | 25,412 | 36,440 |
| Jersey City | 45,500 | 45,200 | 17 | 11 | 70,360 | 33,337 | 138,085 | 147,112 |
| Kearny | 0 | 7,500 | 0 | 1 | 4,700 | 3,350 | 7,600 | 12,800 |
| Montclair | 36,350 | 7,000 | 4 | 1 | 4,450 | 4,325 | 49,020 | 39,527 |
| Newark | 142,500 | 27,500 | 24 | 5 | 93,500 | 278,814 | 338,775 | 389,489 |
| New Brunswick | 0 | 5,000 | 0 | 1 | 0 | 395 | 8,505 | 22,056 |
| Orange | 10,000 | 5,000 | 2 | 1 | 2,000 | 177,480 | 18,643 | 189,795 |
| Passaic | 4,500 | 4,800 | 1 | 1 | 0 | 2,930 | 43,244 | 27,582 |
| Paterson | 17,500 | 19,575 | 5 | 6 | 11,090 | 18,844 | 59,152 | 107,280 |
| Perth Amboy | 0 | 3,600 | 0 | 1 | 129,215 | 625 | 130,365 | 11,550 |
| Plainfield | 76,100 | 10,000 | 10 | 2 | 9,775 | 1,400 | 98,297 | 17,528 |
| Trenton | 9,000 | 9,000 | 1 | 2 | 38,150 | 71,515 | 62,095 | 80,515 |
| Union City | 0 | 0 | 0 | 0 | 500 | 58,450 | 18,212 | 72,600 |
| West New York | 0 | 0 | 0 | 0 | 0 | 0 | 6,535 | 13,575 |
| West Orange | 41,000 | 24,900 | 5 | 4 | 5,035 | 2,640 | 49,410 | 31,080 |
| New York: | | | | | | | | |
| Albany | 52,800 | 139,500 | 7 | 10 | 7,000 | 13,100 | 116,890 | 188,335 |
| Amsterdam | 9,900 | 5,500 | 3 | 2 | 875 | 6,010 | 11,775 | 12,210 |
| Auburn | 0 | 8,300 | 0 | 2 | 850 | 6,200 | 5,700 | 21,400 |
| Binghamton | 10,225 | 26,700 | 3 | 7 | 3,905 | 7,116 | 36,591 | 110,952 |
| Buffalo | 73,900 | 63,540 | 18 | 10 | 213,819 | 42,505 | 333,692 | 176,059 |
| Elmira | 3,350 | 7,000 | 1 | 2 | 905 | 4,120 | 6,438 | 45,933 |
| Jamestown | 5,500 | 8,000 | 2 | 3 | 650 | 11,075 | 13,870 | 41,375 |
| Kingston | 11,800 | 16,400 | 4 | 5 | 2,363 | 17,825 | 18,483 | 43,520 |
| Lockport | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mount Vernon | 0 | 10,000 | 0 | 3 | 10,123 | 2,830 | 26,330 | 30,566 |
| Newburgh | 9,500 | 0 | 1 | 0 | 12,100 | 5,300 | 43,100 | 20,900 |
| New Rochelle | 30,900 | 68,500 | 5 | 5 | 109,200 | 61,758 | 143,219 | 140,074 |
| New York City: | | | | | | | | |
| The Bronx ¹ | 536,600 | 334,500 | 132 | 72 | 53,200 | 195,450 | 1,018,125 | 769,880 |
| Brooklyn ¹ | 615,800 | 232,000 | 151 | 54 | 747,460 | 736,355 | 1,880,677 | 1,590,075 |
| Manhattan ¹ | 1,000,000 | 250,000 | 192 | 72 | 323,200 | 4,643,550 | 1,846,965 | 5,559,555 |
| Queens ¹ | 965,250 | 779,800 | 243 | 164 | 216,589 | 697,643 | 1,416,093 | 1,939,919 |
| Richmond ¹ | 69,215 | 127,040 | 20 | 30 | 400,920 | 48,960 | 523,080 | 239,638 |
| Niagara Falls | 19,378 | 11,900 | 4 | 3 | 120,310 | 32,403 | 159,181 | 61,733 |
| Poughkeepsie | 14,500 | 0 | 2 | 0 | 3,180 | 5,130 | 31,130 | 20,118 |
| Rochester | 54,550 | 141,800 | 8 | 20 | 150,035 | 22,899 | 293,325 | 279,817 |
| Schenectady | 14,000 | 21,800 | 3 | 4 | 1,275 | 4,480 | 48,273 | 50,806 |
| Syracuse | 21,000 | 45,000 | 4 | 9 | 11,835 | 12,650 | 94,447 | 73,180 |
| Troy | 0 | 67,340 | 0 | 14 | 21,535 | 36,225 | 22,545 | 129,660 |
| Utica | 0 | 17,500 | 0 | 3 | 300 | 14,575 | 8,550 | 42,375 |
| Watertown | 0 | 17,600 | 0 | 5 | 390 | 1,025 | 1,865 | 34,592 |
| White Plains | 0 | 7,000 | 0 | 1 | 3,825 | 11,900 | 12,225 | 29,243 |
| Yonkers | 154,300 | 163,200 | 23 | 33 | 11,275 | 22,395 | 232,970 | 210,495 |
| Pennsylvania: | | | | | | | | |
| Allentown | 30,000 | 3,200 | 4 | 1 | 8,825 | 11,100 | 50,460 | 20,485 |
| Altoona | 6,000 | 0 | 4 | 0 | 1,879 | 14,918 | 14,794 | 21,774 |
| Bethlehem | 0 | 16,300 | 0 | 5 | 2,250 | 1,710 | 2,500 | 19,435 |
| Chester | 0 | 0 | 0 | 0 | 1,775 | 600 | 1,775 | 5,315 |
| Easton | 0 | 89,200 | 0 | 15 | 11,010 | 760 | 17,735 | 91,695 |
| Erie | 21,000 | 28,050 | 7 | 6 | 5,710 | 27,560 | 40,860 | 79,675 |
| Harrisburg | 10,800 | 66,500 | 2 | 13 | 6,275 | 5,845 | 47,850 | 262,726 |
| Hazleton | 0 | 21,609 | 0 | 5 | 3,725 | 26,819 | 14,025 | 58,369 |
| Johnstown | 6,000 | 5,500 | 1 | 1 | 795 | 3,920 | 10,770 | 18,775 |
| Lancaster | 7,000 | 19,000 | 2 | 4 | 177,100 | 1,250 | 188,760 | 25,730 |
| McKeesport | 0 | 5,000 | 0 | 1 | 37,375 | 14,345 | 41,680 | 30,794 |
| Nanticoke | 5,000 | 19,000 | 1 | 6 | 0 | 0 | 5,500 | 19,000 |
| New Castle | 0 | 0 | 0 | 0 | 1,835 | 1,990 | 2,135 | 8,365 |
| Norristown | 0 | 0 | 0 | 0 | 12,285 | 1,663 | 14,694 | 6,912 |
| Philadelphia | 402,370 | 154,435 | 89 | 47 | 424,305 | 3,621,550 | 1,028,990 | 3,987,040 |

¹ Applications filed.

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

Middle Atlantic States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | | | | |
| Pennsylvania—Con. | | | | | | | | |
| Pittsburgh..... | \$84,800 | \$67,900 | 21 | 18 | \$73,270 | \$56,919 | \$309,447 | \$241,458 |
| Reading..... | 75,000 | 60,000 | 15 | 12 | 9,825 | 8,210 | 108,950 | 85,310 |
| Scranton..... | 13,100 | 16,500 | 5 | 5 | 6,560 | 309,963 | 39,845 | 370,843 |
| Wilkes-Barre..... | 6,700 | 0 | 2 | 0 | 2,790 | 4,755 | 21,625 | 31,435 |
| Wilkesburg..... | 5,000 | 7,000 | 1 | 1 | 1,200 | 250 | 6,557 | 10,075 |
| Williamsport..... | 2,000 | 0 | 1 | 0 | 640 | 18,376 | 15,380 | 35,186 |
| York..... | 1,800 | 33,200 | 1 | 6 | 3,250 | 3,236 | 28,061 | 43,923 |
| Total..... | 4,995,488 | 3,416,189 | 1,109 | 729 | 3,814,569 | 11,808,233 | 11,958,533 | 19,021,166 |
| Per cent of change..... | | -31.6 | | -34.3 | | +209.6 | | +59.1 |

East North Central States

| | | | | | | | | |
|---------------------|---------|----------|----|----|-----------|---------|-----------|-----------|
| Illinois: | | | | | | | | |
| Alton..... | \$7,500 | \$10,880 | 2 | 3 | \$2,875 | \$600 | \$17,886 | \$20,380 |
| Aurora..... | 7,900 | 16,505 | 1 | 6 | 1,100 | 11,798 | 14,755 | 32,608 |
| Belleville..... | 19,200 | 28,600 | 6 | 11 | 250 | 0 | 20,600 | 31,200 |
| Berwyn..... | 0 | 0 | 0 | 0 | 659 | 3,339 | 5,294 | 6,719 |
| Bloomington..... | 4,000 | 6,000 | 1 | 1 | 65,000 | 2,000 | 71,000 | 17,000 |
| Chicago..... | 176,000 | 136,900 | 30 | 30 | 398,025 | 348,565 | 893,716 | 653,031 |
| Cicero..... | 7,000 | 0 | 1 | 0 | 0 | 1,450 | 7,875 | 4,550 |
| Danville..... | 7,767 | 22,300 | 1 | 13 | 1,850 | 1,300 | 20,427 | 28,943 |
| Decatur..... | 6,000 | 7,000 | 1 | 2 | 12,975 | 8,205 | 32,450 | 17,450 |
| East St. Louis..... | 14,250 | 2,600 | 4 | 1 | 2,850 | 5,350 | 22,860 | 11,760 |
| Elgin..... | 0 | 11,500 | 0 | 3 | 720 | 3,250 | 9,349 | 30,221 |
| Evanston..... | 0 | 0 | 0 | 0 | 2,000 | 6,500 | 82,500 | 74,500 |
| Granite City..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Joliet..... | 0 | 0 | 0 | 0 | 14,000 | 200 | 18,200 | 14,400 |
| Maywood..... | 0 | 4,800 | 0 | 1 | 150 | 130,350 | 2,090 | 143,572 |
| Moline..... | 9,000 | 3,150 | 2 | 2 | 165 | 6,665 | 13,542 | 19,250 |
| Oak Park..... | 0 | 10,400 | 0 | 2 | 8,775 | 11,250 | 16,150 | 26,125 |
| Peoria..... | 36,800 | 37,000 | 9 | 9 | 13,300 | 9,143 | 59,551 | 61,143 |
| Quincy..... | 3,000 | 12,500 | 1 | 3 | 350 | 1,525 | 3,350 | 14,660 |
| Rockford..... | 0 | 0 | 0 | 0 | 534,750 | 22,966 | 539,500 | 30,136 |
| Rock Island..... | 3,000 | 15,350 | 1 | 6 | 1,225 | 2,105 | 8,247 | 26,170 |
| Springfield..... | 8,059 | 44,500 | 2 | 15 | 3,109 | 2,725 | 33,789 | 208,693 |
| Waukegan..... | 2,000 | 19,000 | 1 | 3 | 500 | 13,500 | 3,000 | 35,750 |
| Indiana: | | | | | | | | |
| East Chicago..... | 0 | 0 | 0 | 0 | 0 | 30,150 | 2,700 | 35,535 |
| Elkhart..... | 3,500 | 9,450 | 1 | 4 | 625 | 3,025 | 7,105 | 14,971 |
| Evansville..... | 8,000 | 6,500 | 2 | 3 | 7,061 | 13,488 | 34,988 | 45,678 |
| Fort Wayne..... | 4,950 | 0 | 1 | 0 | 50,800 | 21,040 | 69,799 | 50,851 |
| Gary..... | 5,000 | 0 | 2 | 0 | 1,360 | 525 | 6,360 | 2,125 |
| Hammond..... | 1,000 | 800 | 1 | 1 | 1,250 | 7,135 | 6,050 | 9,365 |
| Indianapolis..... | 89,550 | 74,650 | 20 | 18 | 161,000 | 33,250 | 325,951 | 158,401 |
| Kokomo..... | 0 | 0 | 0 | 0 | 1,085 | 2,065 | 1,525 | 3,167 |
| Lafayette..... | 7,600 | 4,450 | 3 | 2 | 0 | 17,000 | 8,600 | 21,450 |
| Marion..... | 0 | 1,750 | 0 | 2 | 3,500 | 915 | 4,810 | 6,732 |
| Michigan City..... | 2,800 | 25,400 | 1 | 5 | 1,835 | 300 | 5,360 | 27,085 |
| Mishawaka..... | 0 | 2,650 | 0 | 1 | 275 | 383 | 8,325 | 4,133 |
| Muncie..... | 1,000 | 0 | 1 | 0 | 490 | 33,442 | 6,811 | 37,125 |
| Richmond..... | 0 | 0 | 0 | 0 | 200 | 1,800 | 3,200 | 6,700 |
| South Bend..... | 13,000 | 7,000 | 3 | 1 | 1,405 | 5,795 | 19,285 | 25,045 |
| Terre Haute..... | 2,000 | 9,900 | 1 | 3 | 3,500 | 443,230 | 14,642 | 459,373 |
| Michigan: | | | | | | | | |
| Ann Arbor..... | 12,600 | 4,000 | 3 | 1 | 135,190 | 5,545 | 151,831 | 75,821 |
| Battle Creek..... | 0 | 0 | 0 | 0 | 1,300 | 3,975 | 8,825 | 10,795 |
| Bay City..... | 5,000 | 18,000 | 2 | 5 | 1,105 | 12,665 | 9,730 | 38,725 |
| Dearborn..... | 23,900 | 42,000 | 6 | 6 | 3,885 | 2,650 | 35,335 | 55,185 |
| Detroit..... | 131,300 | 690,384 | 28 | 44 | 3,345,620 | 501,568 | 3,651,652 | 1,406,919 |
| Flint..... | 0 | 1,244 | 0 | 1 | 3,021 | 7,964 | 19,761 | 34,108 |
| Grand Rapids..... | 7,800 | 25,500 | 2 | 5 | 55,980 | 975,885 | 70,995 | 1,019,755 |
| Hamtramck..... | 0 | 0 | 0 | 0 | 250 | 0 | 2,850 | 3,765 |
| Highland Park..... | 0 | 0 | 0 | 0 | 6,150 | 535 | 9,190 | 2,970 |
| Jackson..... | 0 | 0 | 0 | 0 | 9,891 | 1,802 | 10,991 | 9,372 |

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

East North Central States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | | | | |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| Michigan—Contd. | | | | | | | | |
| Kalamazoo..... | \$22,000 | \$4,000 | 5 | 2 | \$5,060 | \$1,769 | \$31,912 | \$15,634 |
| Lansing..... | 5,000 | 2,700 | 1 | 1 | 4,125 | 7,800 | 10,525 | 22,295 |
| Muskegon..... | 1,900 | 2,800 | 1 | 2 | 250 | 0 | 3,915 | 2,800 |
| Royal Oak..... | 0 | 1,000 | 0 | 1 | 3,400 | 445 | 5,375 | 2,540 |
| Saginaw..... | 11,865 | 10,100 | 3 | 4 | 38,469 | 4,104 | 62,769 | 27,259 |
| Wyandotte..... | 0 | 12,950 | 0 | 3 | 200 | 970 | 7,975 | 16,655 |
| Ohio: | | | | | | | | |
| Akron..... | 15,000 | 7,400 | 2 | 6 | 66,312 | 189,515 | 101,587 | 207,485 |
| Ashtabula..... | 0 | 2,500 | 0 | 1 | 12,125 | 8,400 | 17,600 | 14,740 |
| Canton..... | 0 | 4,800 | 0 | 2 | 755 | 268,985 | 1,680 | 278,950 |
| Cincinnati..... | 290,495 | 233,650 | 61 | 41 | 279,670 | 185,932 | 644,045 | 469,597 |
| Cleveland..... | 242,500 | 125,100 | 46 | 23 | 36,400 | 42,275 | 500,700 | 512,850 |
| Cleveland Heights..... | 27,380 | 44,200 | 3 | 6 | 1,575 | 6,225 | 30,630 | 55,170 |
| Columbus..... | 34,000 | 41,800 | 6 | 7 | 17,000 | 68,100 | 80,000 | 211,650 |
| Dayton..... | 49,000 | 14,800 | 9 | 4 | 21,860 | 47,278 | 89,565 | 84,512 |
| East Cleveland..... | 0 | 0 | 0 | 0 | 2,750 | 17,520 | 4,420 | 18,295 |
| Elyria..... | 0 | 3,100 | 0 | 1 | 225 | 58,545 | 900 | 65,560 |
| Hamilton..... | 6,100 | 0 | 2 | 0 | 750 | 2,085 | 12,295 | 10,230 |
| Lakewood..... | 46,200 | 16,000 | 37 | 2 | 6,870 | 48,105 | 56,905 | 74,545 |
| Lima..... | 4,000 | 0 | 1 | 0 | 5,250 | 1,545 | 12,020 | 4,925 |
| Lorain..... | 0 | 0 | 0 | 0 | 1,400 | 900 | 1,600 | 1,585 |
| Mansfield..... | 8,000 | 9,000 | 1 | 1 | 2,600 | 3,695 | 11,450 | 15,271 |
| Marion..... | 0 | 1,500 | 0 | 1 | 20,450 | 660 | 20,895 | 2,310 |
| Massillon..... | 0 | 0 | 0 | 0 | 20 | 789 | 1,300 | 939 |
| Middletown..... | 0 | 0 | 0 | 0 | 1,600 | 1,450 | 14,148 | 4,976 |
| Norwood..... | 0 | 5,000 | 0 | 1 | 5,500 | 7,000 | 6,215 | 12,995 |
| Portsmouth..... | 0 | 0 | 0 | 0 | 1,100 | 2,270 | 6,375 | 3,820 |
| Springfield..... | 14,500 | 0 | 3 | 0 | 4,500 | 1,331 | 20,230 | 2,396 |
| Steubenville..... | 6,600 | 0 | 2 | 0 | 0 | 8,100 | 7,350 | 9,590 |
| Toledo..... | 26,750 | 28,500 | 5 | 6 | 9,870 | 11,813 | 50,970 | 62,056 |
| Warren..... | 0 | 0 | 0 | 0 | 140 | 1,380 | 3,545 | 3,780 |
| Youngstown..... | 0 | 11,000 | 0 | 2 | 3,225 | 5,585 | 11,800 | 26,180 |
| Wisconsin: | | | | | | | | |
| Appleton..... | 15,200 | 13,100 | 4 | 3 | 655 | 5,190 | 24,655 | 25,011 |
| Eau Claire..... | 7,500 | 13,000 | 4 | 5 | 5,700 | 2,050 | 17,000 | 16,920 |
| Fond du Lac..... | 2,300 | 7,200 | 1 | 3 | 160 | 1,550 | 3,700 | 11,650 |
| Green Bay..... | 2,900 | 31,900 | 2 | 12 | 8,925 | 87,685 | 15,855 | 124,760 |
| Kenosha..... | 0 | 3,000 | 0 | 1 | 250 | 1,495 | 5,090 | 7,565 |
| Madison..... | 12,000 | 38,600 | 2 | 11 | 2,200 | 10,535 | 45,115 | 66,335 |
| Milwaukee..... | 70,400 | 104,750 | 18 | 22 | 27,845 | 235,749 | 195,624 | 484,565 |
| Oshkosh..... | 3,500 | 3,100 | 1 | 3 | 3,718 | 2,995 | 8,668 | 12,148 |
| Racine..... | 0 | 38,000 | 0 | 1 | 0 | 925 | 7,605 | 45,695 |
| Sheboygan..... | 5,200 | 28,100 | 1 | 4 | 705 | 6,250 | 14,211 | 50,698 |
| Superior..... | 0 | 0 | 0 | 0 | 620 | 104,309 | 21,860 | 107,549 |
| West Allis..... | 5,300 | 3,000 | 1 | 1 | 495 | 2,575 | 8,825 | 19,685 |
| Total..... | 1,566,066 | 2,178,313 | 362 | 396 | 5,466,130 | 4,184,797 | 8,590,706 | 8,286,583 |
| Per cent of change..... | | +39.1 | | +9.4 | | -23.4 | | -3.5 |

West North Central States

| | | | | | | | | |
|---------------------|----------|---------|----|----|---------|--------|---------|---------|
| Iowa: | | | | | | | | |
| Burlington..... | 0 | \$2,500 | 0 | 2 | \$450 | \$450 | \$1,025 | \$5,450 |
| Cedar Rapids..... | \$20,550 | 16,850 | 6 | 7 | 4,630 | 16,008 | 38,696 | 72,419 |
| Council Bluffs..... | 6,500 | 6,000 | 2 | 2 | 4,400 | 2,600 | 25,900 | 21,600 |
| Davenport..... | 3,300 | 13,600 | 1 | 5 | 382,473 | 7,823 | 394,504 | 44,069 |
| Des Moines..... | 37,400 | 70,700 | 10 | 22 | 4,535 | 22,122 | 84,065 | 118,672 |
| Dubuque..... | 10,000 | 14,200 | 1 | 5 | 1,515 | 3,643 | 18,084 | 26,354 |
| Ottumwa..... | 0 | 15,000 | 0 | 2 | 0 | 4,850 | 10,500 | 21,850 |
| Sioux City..... | 17,300 | 26,900 | 5 | 10 | 50,375 | 7,935 | 69,025 | 36,550 |
| Waterloo..... | 6,000 | 17,100 | 1 | 11 | 1,145 | 18,390 | 33,605 | 45,940 |
| Kansas: | | | | | | | | |
| Hutchinson..... | 14,000 | 10,000 | 6 | 4 | 520 | 5,225 | 18,660 | 18,395 |
| Kansas City..... | 9,100 | 10,950 | 11 | 8 | 9,880 | 5,680 | 21,230 | 22,705 |
| Topeka..... | 56,400 | 19,800 | 16 | 6 | 13,820 | 6,500 | 75,183 | 30,550 |
| Wichita..... | 12,500 | 27,700 | 3 | 7 | 4,546 | 26,745 | 27,751 | 65,168 |

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

West North Central States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|--------------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | | | | |
| Minnesota: | | | | | | | | |
| Duluth..... | \$10,500 | \$12,000 | 3 | 5 | \$6,475 | \$23,485 | \$56,038 | \$63,615 |
| Minneapolis..... | 113,325 | 189,650 | 31 | 44 | 117,523 | 98,615 | 340,998 | 380,525 |
| St. Paul..... | 101,400 | 119,988 | 21 | 20 | 256,209 | 438,356 | 470,986 | 700,983 |
| Missouri: | | | | | | | | |
| Joplin..... | 0 | 5,000 | 0 | 4 | 2,225 | 800 | 9,025 | 10,750 |
| Kansas City..... | 75,000 | 60,500 | 21 | 18 | 10,800 | 339,800 | 107,000 | 443,500 |
| Springfield..... | 1,400 | 12,500 | 2 | 4 | 4,525 | 3,750 | 21,525 | 32,726 |
| St. Joseph..... | 3,750 | 13,000 | 3 | 4 | 1,060 | 9,745 | 19,160 | 30,867 |
| St. Louis..... | 311,650 | 252,700 | 75 | 67 | 119,350 | 53,176 | 519,277 | 443,481 |
| Nebraska: | | | | | | | | |
| Lincoln..... | 6,600 | 8,900 | 4 | 5 | 18,702 | 3,665 | 42,303 | 43,085 |
| Omaha..... | 73,050 | 111,650 | 18 | 27 | 18,230 | 178,448 | 129,160 | 306,368 |
| North Dakota: Fargo..... | 0 | 12,950 | 0 | 3 | 3,825 | 1,995 | 4,125 | 29,795 |
| South Dakota: Sioux Falls..... | 26,375 | 29,060 | 4 | 11 | 28,250 | 94,435 | 54,625 | 124,620 |
| Total..... | 916,100 | 1,079,198 | 244 | 303 | 1,065,463 | 1,374,241 | 2,592,450 | 3,139,137 |
| Per cent of change..... | | +17.8 | | +24.2 | | +29.0 | | +21.1 |

South Atlantic States

| | | | | | | | | |
|-----------------------|---------|----------|-----|----|----------|-----------|-----------|-----------|
| Delaware: | | | | | | | | |
| Wilmington..... | \$8,800 | \$20,000 | 1 | 4 | \$10,110 | \$6,698 | \$35,229 | \$62,219 |
| District of Columbia: | | | | | | | | |
| Washington..... | 983,900 | 537,250 | 168 | 90 | 648,905 | 4,440,875 | 1,800,687 | 5,195,747 |
| Florida: | | | | | | | | |
| Jacksonville..... | 29,700 | 40,900 | 14 | 13 | 17,045 | 3,920 | 88,050 | 90,385 |
| Miami..... | 25,500 | 10,190 | 12 | 6 | 10,525 | 254,966 | 60,681 | 305,357 |
| Orlando..... | 0 | 0 | 0 | 0 | 400 | 0 | 10,900 | 4,920 |
| Pensacola..... | 6,075 | 3,400 | 5 | 2 | 2,300 | 4,170 | 115,044 | 7,570 |
| St. Petersburg..... | 20,900 | 3,700 | 3 | 5 | 3,100 | 6,700 | 36,700 | 16,900 |
| Tampa..... | 1,100 | 16,300 | 4 | 6 | 4,940 | 11,900 | 30,152 | 47,353 |
| Georgia: | | | | | | | | |
| Atlanta..... | 61,950 | 57,800 | 31 | 23 | 341,576 | 19,505 | 455,544 | 154,271 |
| Augusta..... | 12,571 | 3,600 | 7 | 3 | 400 | 0 | 17,642 | 34,064 |
| Columbus..... | 500 | 3,000 | 1 | 1 | 1,265 | 500 | 4,310 | 13,431 |
| Macon..... | 1,650 | 16,000 | 2 | 1 | 318,148 | 60,150 | 331,275 | 93,200 |
| Maryland: | | | | | | | | |
| Baltimore..... | 189,000 | 112,000 | 49 | 24 | 419,300 | 1,391,700 | 1,041,800 | 2,046,800 |
| Cumberland..... | 8,200 | 1,200 | 4 | 2 | 9,475 | 5,655 | 20,825 | 7,605 |
| Hagerstown..... | 0 | 4,500 | 0 | 1 | 708 | 5,010 | 708 | 10,785 |
| North Carolina: | | | | | | | | |
| Asheville..... | 0 | 0 | 0 | 0 | 236 | 1,590 | 3,471 | 10,480 |
| Charlotte..... | 49,500 | 14,600 | 10 | 4 | 35,460 | 588 | 94,733 | 26,517 |
| Durham..... | 9,110 | 19,300 | 9 | 8 | 31,500 | 6,700 | 64,430 | 31,350 |
| Greensboro..... | 1,800 | 0 | 1 | 0 | 1,940 | 3,440 | 13,580 | 11,237 |
| High Point..... | 0 | 8,700 | 0 | 3 | 236,025 | 5,943 | 236,825 | 14,643 |
| Raleigh..... | 0 | 10,350 | 0 | 6 | 2,202 | 190 | 6,352 | 21,999 |
| Wilmington..... | 2,500 | 2,000 | 1 | 3 | 300 | 3,100 | 11,750 | 9,450 |
| Winston-Salem..... | 8,700 | 8,650 | 2 | 5 | 4,675 | 21,130 | 26,464 | 39,125 |
| South Carolina: | | | | | | | | |
| Charleston..... | 3,750 | 15,350 | 3 | 3 | 0 | 775 | 9,749 | 32,167 |
| Columbia..... | 14,900 | 15,125 | 9 | 10 | 62,137 | 14,595 | 86,561 | 76,847 |
| Greenville..... | 6,000 | 3,800 | 2 | 4 | 2,500 | 1,050 | 27,445 | 12,660 |
| Spartanburg..... | 0 | 1,600 | 0 | 1 | 1,900 | 950 | 5,122 | 6,410 |
| Virginia: | | | | | | | | |
| Newport News..... | 11,200 | 16,200 | 5 | 5 | 1,229 | 2,017 | 18,623 | 25,889 |
| Norfolk..... | 75,700 | 94,800 | 22 | 25 | 54,688 | 229,420 | 181,945 | 347,495 |
| Petersburg..... | 8,485 | 1,000 | 2 | 1 | 460 | 700 | 12,345 | 8,550 |
| Portsmouth..... | 17,650 | 7,800 | 6 | 3 | 1,790 | 1,120 | 25,442 | 15,387 |
| Richmond..... | 64,050 | 51,850 | 16 | 21 | 9,540 | 9,905 | 91,233 | 110,190 |
| Roanoke..... | 19,743 | 32,130 | 5 | 4 | 6,247 | 695 | 34,300 | 44,023 |

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

South Atlantic States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | | | | |
| West Virginia: | | | | | | | | |
| Charleston..... | \$15,100 | \$45,500 | 4 | 12 | \$6,350 | \$123,397 | \$29,065 | \$182,639 |
| Clarksburg..... | 0 | 1,200 | 0 | 1 | 700 | 1,320 | 3,545 | 6,220 |
| Huntington..... | 5,700 | 8,275 | 3 | 3 | 2,263 | 7,470 | 13,238 | 37,928 |
| Parkersburg..... | 5,750 | 4,000 | 2 | 1 | 425 | 940 | 8,015 | 6,805 |
| Wheeling..... | 5,000 | 2,650 | 3 | 3 | 3,400 | 15,900 | 17,200 | 44,574 |
| Total..... | 1,674,484 | 1,194,720 | 406 | 307 | 2,254,164 | 6,664,684 | 5,070,980 | 9,213,222 |
| Per cent of change..... | | -28.7 | | -24.4 | | +195.7 | | +81.7 |

South Central States

| | | | | | | | | |
|-------------------------|---------|---------|-----|------|-----------|-----------|-----------|-----------|
| Alabama: | | | | | | | | |
| Birmingham..... | \$5,000 | \$3,600 | 1 | 5 | \$22,200 | \$54,370 | \$61,800 | \$85,286 |
| Mobile..... | 7,200 | 6,500 | 6 | 8 | 9,975 | 16,400 | 25,202 | 40,733 |
| Montgomery..... | (2) | 21,290 | (1) | 10 | 770,179 | 26,950 | 770,179 | 61,882 |
| Arkansas: | | | | | | | | |
| Little Rock..... | 1,000 | 2,375 | 1 | 3 | 725 | 4,004 | 43,477 | 20,464 |
| Kentucky: | | | | | | | | |
| Covington..... | 8,000 | 0 | 2 | 0 | 950 | 1,000 | 18,950 | 7,355 |
| Lexington..... | 3,000 | 4,750 | 2 | 2 | 2,183 | 15,600 | 30,039 | 30,223 |
| Louisville..... | 74,750 | 58,000 | 13 | 12 | 7,450 | 295,986 | 119,845 | 390,186 |
| Newport..... | 0 | 4,800 | 0 | 1 | 0 | 800 | 600 | 7,200 |
| Paducah..... | 0 | 0 | 0 | 0 | 4,000 | 0 | 4,150 | 900 |
| Louisiana: | | | | | | | | |
| Baton Rouge..... | 8,639 | 4,600 | 4 | 5 | 2,389 | 309,128 | 32,632 | 329,183 |
| Monroe..... | 0 | 0 | 0 | 0 | 4,600 | 22,750 | 8,825 | 27,700 |
| New Orleans..... | 38,750 | 90,536 | 24 | 31 | 43,275 | 309,778 | 131,314 | 452,864 |
| Shreveport..... | 18,650 | 17,300 | 11 | 11 | 1,490 | 5,545 | 35,616 | 48,232 |
| Mississippi: | | | | | | | | |
| Jackson..... | 11,000 | 23,600 | 5 | 6 | 0 | 0 | 18,625 | 38,615 |
| Oklahoma: | | | | | | | | |
| Enid..... | 4,000 | 1,750 | 2 | 2 | 11,300 | 235 | 17,300 | 4,900 |
| Oklahoma City..... | 59,500 | 90,000 | 19 | 18 | 1,728,225 | 447,875 | 1,802,175 | 566,195 |
| Okmulgee..... | 0 | 0 | 0 | 0 | 0 | 0 | 3,350 | 0 |
| Tulsa..... | 28,150 | 17,575 | 8 | 7 | 13,585 | 51,853 | 54,395 | 77,866 |
| Tennessee: | | | | | | | | |
| Chattanooga..... | 6,350 | 3,000 | 2 | 2 | 42,400 | 5,330 | 84,619 | 35,371 |
| Johnson City..... | 8,000 | 0 | 2 | 0 | 0 | 450 | 8,000 | 800 |
| Knoxville..... | 21,920 | 15,960 | 6 | 7 | 13,970 | 38,112 | 41,940 | 64,062 |
| Memphis..... | 24,180 | 28,600 | 14 | 11 | 44,850 | 31,720 | 143,260 | 162,240 |
| Nashville..... | 36,200 | 78,550 | 15 | 33 | 8,555 | 14,730 | 64,339 | 110,823 |
| Texas: | | | | | | | | |
| Amarillo..... | 12,850 | 8,535 | 5 | 13 | 23,045 | 18,815 | 43,965 | 33,920 |
| Austin..... | 30,300 | 50,485 | 20 | 27 | 444,853 | 506,174 | 495,634 | 566,474 |
| Beaumont..... | 1,000 | 0 | 1 | 0 | 32,540 | 20,735 | 45,687 | 37,575 |
| Dallas..... | 96,550 | 55,694 | 46 | 35 | 45,565 | 330,060 | 218,038 | 465,695 |
| El Paso..... | 8,400 | 6,650 | 3 | 2 | 42,015 | 4,585 | 55,074 | 24,759 |
| Fort Worth..... | 70,500 | 47,500 | 34 | 21 | 20,600 | 33,900 | 124,800 | 127,999 |
| Galveston..... | 17,750 | 41,300 | 10 | 16 | 299,828 | 17,132 | 356,722 | 69,281 |
| Houston..... | 179,400 | 145,730 | 64 | 61 | 162,100 | 167,350 | 368,900 | 333,730 |
| San Angelo..... | 1,500 | 0 | 1 | 0 | 7,875 | 0 | 14,300 | 19,082 |
| San Antonio..... | 37,468 | 50,865 | 27 | 31 | 421,875 | 184,681 | 501,174 | 254,147 |
| Waco..... | 17,900 | 7,000 | 11 | 6 | 6,265 | 2,533 | 35,132 | 14,985 |
| Wichita Falls..... | 0 | 0 | 0 | 0 | 8,811 | 3,840 | 20,694 | 8,500 |
| Total..... | 837,907 | 886,545 | 359 | 386 | 4,247,673 | 2,942,421 | 5,800,752 | 4,519,227 |
| Per cent of change..... | | +5.8 | | +7.5 | | -30.7 | | -22.1 |

¹ Building inspector's records for March destroyed by fire. The nonresidential building shown is a post-office building, contract for which was awarded by the Supervising Architect of the Treasury Department.

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

Mountain and Pacific States

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1932 | April, 1932 | March, 1932 | April, 1932 |
| | March, 1932 | April, 1932 | March, 1932 | April, 1932 | | | | |
| Arizona: | | | | | | | | |
| Phoenix..... | \$18,500 | \$30,150 | 3 | 7 | \$10,100 | \$27,090 | \$53,955 | \$91,750 |
| Tucson..... | 15,400 | 24,400 | 5 | 7 | 13,165 | 4,557 | 36,704 | 56,695 |
| California: | | | | | | | | |
| Alameda..... | 18,600 | 3,850 | 5 | 1 | 1,325 | 17,640 | 28,828 | 29,408 |
| Alhambra..... | 42,650 | 34,000 | 16 | 11 | 16,725 | 5,225 | 64,450 | 42,725 |
| Bakersfield..... | 4,300 | 5,700 | 2 | 1 | 8,823 | 4,550 | 22,838 | 24,820 |
| Berkeley..... | 30,500 | 28,050 | 7 | 8 | 2,260 | 50,812 | 46,397 | 107,267 |
| Fresno..... | 35,700 | 16,100 | 14 | 6 | 276,750 | 17,510 | 335,187 | 49,099 |
| Glendale..... | 135,850 | 50,590 | 29 | 12 | 20,290 | 34,180 | 163,640 | 91,320 |
| Huntington Park..... | 35,100 | 4,500 | 13 | 3 | 3,100 | 0 | 43,675 | 4,500 |
| Long Beach..... | 90,400 | 117,885 | 32 | 46 | 96,765 | 50,330 | 231,665 | 213,925 |
| Los Angeles..... | 953,757 | 692,990 | 372 | 246 | 1,989,808 | 527,320 | 3,486,622 | 1,531,814 |
| Oakland..... | 109,950 | 85,826 | 33 | 27 | 36,573 | 35,075 | 210,104 | 183,920 |
| Pasadena..... | 10,250 | 40,070 | 2 | 11 | 7,978 | 43,228 | 51,784 | 111,427 |
| Riverside..... | 5,000 | 13,500 | 2 | 3 | 7,691 | 1,290 | 22,887 | 22,059 |
| Sacramento..... | 33,200 | 99,932 | 14 | 19 | 884,775 | 11,420 | 1,015,517 | 172,056 |
| San Diego..... | 87,225 | 89,675 | 30 | 32 | 31,775 | 113,575 | 177,695 | 244,618 |
| San Francisco..... | 577,525 | 448,000 | 174 | 114 | 323,769 | 407,005 | 1,071,250 | 1,037,012 |
| San Jose..... | 34,550 | 9,000 | 11 | 2 | 40,970 | 2,965 | 96,305 | 23,245 |
| Santa Ana..... | 19,500 | 8,800 | 5 | 2 | 2,700 | 24,199 | 27,972 | 38,959 |
| Santa Barbara..... | 49,750 | 16,750 | 16 | 7 | 8,370 | 1,040 | 77,508 | 28,735 |
| Santa Monica..... | 61,975 | 52,000 | 25 | 29 | 20,320 | 15,775 | 87,279 | 78,820 |
| Stockton..... | 41,200 | 22,300 | 10 | 12 | 11,980 | 120,504 | 63,231 | 176,129 |
| Vallejo..... | 11,300 | 5,400 | 3 | 3 | 12,235 | 13,977 | 27,680 | 21,200 |
| Colorado: | | | | | | | | |
| Colorado Springs..... | 8,250 | 38,950 | 3 | 8 | 1,000 | 1,945 | 33,807 | 47,355 |
| Denver..... | 163,500 | 167,100 | 35 | 41 | 53,200 | 40,475 | 271,650 | 269,855 |
| Pueblo..... | 5,500 | 1,800 | 3 | 1 | 4,110 | 1,795 | 18,545 | 11,032 |
| Montana: | | | | | | | | |
| Butte..... | 0 | 0 | 0 | 0 | 1,400 | 9,670 | 1,895 | 10,530 |
| Great Falls..... | 2,000 | 5,100 | 1 | 4 | 400 | 4,795 | 4,650 | 19,545 |
| New Mexico: | | | | | | | | |
| Albuquerque..... | 21,500 | 24,550 | 5 | 6 | 8,125 | 1,775 | 39,190 | 47,376 |
| Oregon: | | | | | | | | |
| Portland..... | 128,150 | 87,630 | 29 | 20 | 158,980 | 242,630 | 375,190 | 404,395 |
| Salem..... | 5,600 | 0 | 3 | 0 | 440 | 13,025 | 10,849 | 43,735 |
| Utah: | | | | | | | | |
| Ogden..... | 5,000 | 1,250 | 1 | 2 | 1,150 | 1,600 | 7,450 | 10,600 |
| Salt Lake City..... | 15,900 | 24,800 | 6 | 5 | 5,090 | 15,907 | 33,965 | 71,222 |
| Washington: | | | | | | | | |
| Bellingham..... | 8,500 | 4,600 | 12 | 2 | 200 | 0 | 9,695 | 28,325 |
| Everett..... | 0 | 0 | 0 | 0 | 3,515 | 1,495 | 9,700 | 6,818 |
| Seattle..... | 63,025 | 64,575 | 35 | 35 | 48,440 | 81,880 | 202,635 | 240,665 |
| Spokane..... | 41,750 | 68,050 | 15 | 21 | 10,555 | 25,280 | 89,195 | 119,980 |
| Tacoma..... | 26,500 | 30,000 | 14 | 12 | 9,195 | 15,145 | 50,755 | 58,765 |
| Total..... | 2,917,357 | 2,417,873 | 985 | 766 | 4,134,047 | 1,986,684 | 8,602,344 | 5,771,701 |
| Per cent of change..... | | -17.1 | | -22.2 | | -51.9 | | -32.9 |

New Type of Modern Low-Cost Housing

THE Constructor, a publication of the Associated General Contractors of America, in its April issue contains an article under the heading "Revolutionary Type of Modern Housing to Sell Below \$2,000." According to this article, designs for modern high-type housing which, including the land, can be sold profitably at a maximum price of \$2,000 for approximately 1,000 square feet of floor space, have been perfected by the Allied Construction Industries Standardized House Conference of Los Angeles.

This organization is composed of outstanding architects, structural and mechanical engineers, and production executives, who have been

working on the problem of producing such housing for several years. At the present time the major technical and production problems appear to have been solved, according to a statement by Zara Witkin, chief engineer of the Herbert M. Baruch Corporation of Los Angeles, and chairman of the conference.

The plans developed call for factory-made units of wall sections, flexible in design and appearance and suitable for application in both detached houses and in large-scale apartment construction.

This new type of housing, as described by Mr. Witkin, is designed with hollow walls and framed with standard 3 and 4 inch I-beams. The webs of the steel are punched with elliptical holes through which pipes, conduits, and other mechanical service devices are passed. The steel framing is designed on new lines which constitute a considerable departure from traditional designs based on wood framing. The steel is fabricated at factory plants in room-side units with door and window frames hung before shipment and with piping and conduits inserted in place in the framing.

The exterior of the structure consists of high strength, reinforced concrete masonry plates which are rolled of dense concrete on steel beds. The plates are provided with color and texture and may range in thickness from $\frac{5}{8}$ inch to $1\frac{1}{2}$ inches. They may be made self-insulating through use of Haydite aggregate or be backed with special insulating material. In general, the exterior masonry plates are about one-quarter of a story in height and span across two steel upright members, being about 8 feet in length. All plates are tongued and grooved all around.

A special system of attaching the plates to the steel framing has been devised which constitutes an essential feature of the entire system. Several alternate fastening devices have also been worked out.

Interior plates are of gypsum or concrete masonry. They are cast or rolled up to room height and a few standard sizes take care of all requirements. All joints between floor and wall, wall to wall, and between wall and ceiling are coved. Ceilings are also of gypsum plate attached to special steel truss joists designed with continuous depth between chords. Roof deck is of $1\frac{1}{2}$ inch rolled concrete plate with waterproofed surface.

Detached houses are designed with rooms all on one floor and with the roof arranged for use as a sun garden or sleeping porch. The basement is eliminated, the first floor being of concrete poured directly on bituminized insulation carried direct on the ground. The complete and thorough water-proofing of the floor slab and its insulation successfully provides against damp or cold floors, in this respect the house being like a ship, thoroughly isolated from the elements.

Designs for wall covering and other decorative material have been worked out far beyond current practice as to range of choice, serviceability, and economy. Another feature of the design having a great effect on economy consists of the unification of mechanical facilities for the mechanical service room, bathroom, and kitchen, which are designed as a concentrated unified group. Both detached and multiple housing can be erected of these standard units without there being any close similarity in appearance or shape, it is claimed. Monotonous similarity will therefore be avoided.

WAGES AND HOURS OF LABOR

Wages and Hours of Labor in Gasoline Filling Stations, 1931

FILLING-STATION employees earned an average of 39.3 cents per hour and \$23.39 in a representative week during the months of April to July in 1931, as shown by a study made by the Bureau of Labor Statistics covering 2,960 employees of 736 filling stations in 43 representative cities.¹ These employees worked, on an average, 6.5 days during the week (counting as a day each whole or part day worked). The full-time hours per week for the employees covered in the study averaged 60, while the time actually worked averaged 59.5 hours, or 99.2 per cent of full time. At full time, the weekly earnings averaged \$23.58.

These data are shown in Table 1, as are also averages for 8 of the most important occupations in the industry and for a group, designated as "other employees," including the employees in occupations in which the number of employees was too small to warrant separate occupational tabulation. The averages in this and other tables in this report are for males only; but 8 females were employed at the 736 stations included in the study. There were 198 Negroes, employed mostly by stations in cities in Southern States and working principally as car washers, greasers, or tire men. Operators and operators' helpers were the most important occupations, in point of numbers employed, forming approximately 75 per cent of the total number of employees.

The fewest days (5.3) in one week were worked by relief men, and the largest number of days (6.9) by porters.

Average full-time hours per week in the various occupations ranged from 48.3 for relief men to 67.9 for tire men, while hours actually worked ranged from 46.6 for relief men to 67.8 for tire men.

The figures in the column headed "Per cent of full time worked in week" show that car washers worked a smaller per cent of average full-time hours per week (92.5) than the employees in any other occupation in the table. Average hours in excess of full time are shown for porters and for operators. Although some employees in these occupations worked only part time, others worked overtime, and the overtime more than counterbalanced the time lost.

The average earnings per hour ranged from 19.3 cents for porters to 63.1 cents for managers; full-time earnings per week ranged from \$12.56 for porters to \$36.16 for managers; and actual earnings in one week ranged from \$12.65 for porters to \$36.09 for managers.

In addition to earnings at regular basic wage rates, employees at a few stations had other earnings or income, or were given certain advantages or privileges, but data as to the amounts involved were not of record. These amounts, however, were probably small and so would

¹ More detailed information will be published later in bulletin form.

not have affected the averages materially. It was reported at one station that extra money was received for tire-patching jobs. Employees of another station could have three meals a day without expense to them at a hotel owned by the employing company. The operator at a third station obtained his living quarters at the nominal rental of \$10 per month. At other stations employees could buy gasoline and oil for their own use at a discount.

The study included filling-station employees in 2 cities in each of 8 States and in 1 city in each of 26 States and in the District of Columbia. (See Table 2, p. 1390.) In 1 city data were obtained for 9 filling stations; in each of 4 cities, 14 stations; in each of 2 cities, 15 stations; in each of 11 cities, 16 stations; in 1 city, 17 stations; in each of 16 cities, 18 stations; and in each of 8 cities, 20 stations. A greater number of stations and employees was covered in large than in small cities.

Data were obtained as to the individual hours of labor and earnings of employees for a representative pay-roll period (one week, nine days, a half month, or one month) during April, May, June, or July, 1931; the average hours and earnings, therefore, are as of those months. The wage figures for the stations with a pay period of more than one week were recomputed so that averages for all employees covered in the study could be shown on a uniform basis of one week.

The principal business of a filling station is the selling of gasoline and lubricating oil. Tire service, the washing and greasing of cars, the sale of accessories and supplies, and the minor adjustment or repair of cars are generally incidental. In selecting stations for inclusion in the report, the effort was made to include only typical filling stations in each city. Some of the 736 stations included were privately owned and operated; some belonged to small companies with a group of stations in one city; and others were those of large refining companies operating stations in practically all the large cities in the United States. In this report the stations of 239 different companies are represented.

TABLE 1.—AVERAGE HOURS AND EARNINGS OF FILLING-STATION EMPLOYEES IN 1931, BY OCCUPATION

| Occupation | Number of stations | Number of employees | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|-------------------------|--------------------|---------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | Average number | Per cent of full time | | | |
| Car washers..... | 84 | 151 | 6.5 | 66.9 | 61.9 | 92.5 | \$0.248 | \$16.59 | \$15.36 |
| Greasers..... | 164 | 280 | 6.4 | 59.9 | 59.6 | 99.5 | .393 | 23.54 | 23.41 |
| Managers..... | 60 | 68 | 6.4 | 57.3 | 57.2 | 99.8 | .631 | 36.16 | 36.09 |
| Operators..... | 683 | 1,182 | 6.6 | 61.0 | 61.3 | 100.5 | .441 | 26.90 | 27.01 |
| Operators' helpers..... | 475 | 1,039 | 6.4 | 57.7 | 57.2 | 99.1 | .362 | 20.89 | 20.71 |
| Porters..... | 55 | 72 | 6.9 | 65.1 | 65.7 | 100.9 | .193 | 12.56 | 12.65 |
| Relief men..... | 51 | 52 | 5.3 | 48.3 | 46.6 | 96.5 | .409 | 19.75 | 19.07 |
| Tire men..... | 35 | 56 | 6.6 | 67.9 | 67.8 | 99.9 | .300 | 20.37 | 20.36 |
| Other employees..... | 28 | 60 | 6.4 | 60.0 | 58.5 | 97.5 | .404 | 24.24 | 23.65 |
| Total..... | 736 | 2,960 | 6.5 | 60.0 | 59.5 | 99.2 | .393 | 23.58 | 23.39 |

Average Hours and Earnings, by Cities

TABLE 2 shows, for each of 43 cities, the average days, hours, and earnings of the 2,960 employees included in the study.

The number of stations covered ranged from 9 in Burlington, Vt., to 20 each in Philadelphia, Baltimore, Boston, Chicago, Cleveland, Detroit, St. Louis, and New York. The number of employees ranged from 23 in Burlington to 151 in Chicago.

Average full-time hours per week ranged, by cities, from a low of 51.8 to a high of 72.7, the average for all cities combined being 60 per week.

Average hours actually worked in one week ranged in the various cities from 51.3 to 72.7, while the average for all cities combined was 59.5. The per cent of full time actually worked in one week ranged from 94.0 to 101.9. In 14 cities the percentage of full time worked was over 100, showing that there was considerable overtime work in this industry.

Average earnings per hour ranged by cities from 22.6 to 60.3 cents, while the average for all cities combined was 39.3 cents.

Average full-time earnings per week ranged by cities from \$15.82 to \$32.92 and for all cities combined averaged \$23.58, while average actual earnings ranged from \$15.82 to \$30.94, with a general average of \$23.39.

TABLE 2.—AVERAGE HOURS AND EARNINGS OF FILLING-STATION EMPLOYEES IN 1931, BY CITY

| City | Number of stations | Number of employees | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|-------------------------------|--------------------|---------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | Average number | Per cent of full time | | | |
| Altoona, Pa..... | 16 | 69 | 6.3 | 53.7 | 53.5 | 99.6 | \$0.388 | \$20.84 | \$20.74 |
| Philadelphia, Pa..... | 20 | 95 | 6.3 | 53.9 | 53.2 | 98.7 | .418 | 22.53 | 22.27 |
| Altoona and Philadelphia..... | 36 | 164 | 6.3 | 53.8 | 53.3 | 99.1 | .405 | 21.79 | 21.63 |
| Atlanta, Ga..... | 18 | 100 | 6.7 | 64.6 | 60.7 | 94.0 | .285 | 18.41 | 17.30 |
| Austin, Tex..... | 16 | 53 | 6.8 | 62.3 | 62.7 | 100.6 | .335 | 20.87 | 21.02 |
| Houston, Tex..... | 18 | 85 | 6.7 | 57.3 | 57.3 | 100.0 | .351 | 20.11 | 20.11 |
| Austin and Houston..... | 34 | 138 | 6.7 | 59.2 | 59.4 | 100.3 | .345 | 20.42 | 20.47 |
| Baltimore, Md..... | 20 | 123 | 6.2 | 56.4 | 56.4 | 100.0 | .438 | 24.70 | 24.70 |
| Birmingham, Ala..... | 18 | 67 | 6.9 | 64.4 | 64.4 | 100.0 | .284 | 18.29 | 18.29 |
| Boston, Mass..... | 20 | 94 | 6.5 | 55.3 | 55.2 | 99.8 | .491 | 27.15 | 27.11 |
| Holyoke, Mass..... | 14 | 41 | 6.7 | 59.9 | 60.8 | 101.5 | .457 | 27.37 | 27.77 |
| Boston and Holyoke..... | 34 | 135 | 6.6 | 56.7 | 56.9 | 100.4 | .480 | 27.22 | 27.31 |
| Burlington, Vt..... | 9 | 23 | 6.3 | 65.1 | 64.9 | 99.7 | .315 | 20.51 | 20.45 |
| Charleston, S. C..... | 16 | 58 | 6.6 | 62.4 | 62.4 | 100.0 | .354 | 22.09 | 22.09 |
| Charlotte, N. C..... | 16 | 57 | 6.5 | 68.4 | 67.5 | 98.7 | .296 | 20.25 | 20.01 |
| Chicago, Ill..... | 20 | 151 | 6.4 | 54.6 | 51.3 | 94.0 | .603 | 32.92 | 30.94 |
| Danville, Ill..... | 16 | 50 | 6.7 | 63.7 | 63.2 | 99.2 | .392 | 24.97 | 24.75 |
| Chicago and Danville..... | 36 | 201 | 6.4 | 56.9 | 54.2 | 95.3 | .542 | 30.84 | 29.40 |
| Cleveland, Ohio..... | 20 | 96 | 6.5 | 57.9 | 57.2 | 98.8 | .470 | 27.21 | 26.91 |
| Hamilton, Ohio..... | 16 | 47 | 6.8 | 56.6 | 56.6 | 100.0 | .413 | 23.38 | 23.38 |
| Cleveland and Hamilton..... | 36 | 143 | 6.6 | 57.5 | 57.0 | 99.1 | .451 | 25.93 | 25.74 |

TABLE 2.—AVERAGE HOURS AND EARNINGS OF FILLING-STATION EMPLOYEES IN 1931, BY CITY—Continued

| City | Number of stations | Number of employees | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|-----------------------------|--------------------|---------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | Average number | Per cent of full time | | | |
| Des Moines, Iowa..... | 18 | 49 | 6.8 | 63.2 | 63.3 | 100.2 | \$0.371 | \$23.45 | \$23.47 |
| Detroit, Mich..... | 20 | 114 | 6.3 | 57.8 | 57.7 | 99.8 | .469 | 27.11 | 27.07 |
| Hartford, Conn..... | 18 | 68 | 6.3 | 53.0 | 53.1 | 100.2 | .494 | 26.18 | 26.25 |
| Huntington, W. Va..... | 16 | 42 | 6.6 | 64.2 | 63.7 | 99.2 | .319 | 20.48 | 20.30 |
| Indianapolis, Ind..... | 18 | 62 | 6.6 | 60.2 | 60.7 | 100.8 | .412 | 24.80 | 25.01 |
| Jacksonville, Fla..... | 18 | 78 | 7.0 | 72.7 | 72.7 | 100.0 | .254 | 18.47 | 18.47 |
| Joplin, Mo..... | 16 | 38 | 6.9 | 64.1 | 64.4 | 100.5 | .303 | 19.42 | 19.54 |
| St. Louis, Mo..... | 20 | 72 | 6.8 | 62.5 | 62.3 | 99.7 | .396 | 24.75 | 24.65 |
| Joplin and St. Louis..... | 36 | 110 | 6.8 | 63.1 | 63.0 | 99.8 | .363 | 22.91 | 22.88 |
| Kansas City, Kans..... | 18 | 51 | 6.5 | 60.5 | 60.0 | 99.2 | .371 | 22.45 | 22.26 |
| Lincoln, Nebr..... | 14 | 50 | 6.8 | 64.0 | 65.2 | 101.9 | .329 | 21.06 | 21.48 |
| Little Rock, Ark..... | 16 | 77 | 6.8 | 61.7 | 62.1 | 100.6 | .337 | 20.79 | 20.92 |
| Louisville, Ky..... | 18 | 66 | 5.8 | 57.0 | 56.4 | 98.9 | .332 | 18.92 | 18.75 |
| Manchester, N. H..... | 14 | 37 | 6.6 | 56.7 | 56.3 | 99.3 | .405 | 22.96 | 22.80 |
| Memphis, Tenn..... | 18 | 71 | 6.7 | 67.0 | 66.8 | 99.7 | .304 | 20.37 | 20.32 |
| Meridian, Miss..... | 16 | 66 | 6.8 | 70.0 | 70.0 | 100.0 | .226 | 15.82 | 15.82 |
| Milwaukee, Wis..... | 15 | 59 | 6.5 | 61.1 | 60.7 | 99.3 | .399 | 24.38 | 24.20 |
| Superior, Wis..... | 16 | 28 | 6.4 | 68.0 | 66.6 | 97.9 | .365 | 24.82 | 24.31 |
| Milwaukee and Superior..... | 31 | 87 | 6.4 | 63.3 | 62.6 | 98.9 | .387 | 24.50 | 24.24 |
| Minneapolis, Minn..... | 18 | 49 | 6.2 | 58.8 | 59.5 | 101.2 | .380 | 22.34 | 22.63 |
| New Orleans, La..... | 18 | 68 | 6.9 | 60.9 | 60.9 | 100.0 | .348 | 21.19 | 21.19 |
| New York, N. Y..... | 20 | 92 | 5.9 | 59.9 | 59.8 | 99.8 | .503 | 30.13 | 30.05 |
| Rochester, N. Y..... | 18 | 73 | 6.1 | 52.0 | 52.3 | 100.6 | .484 | 25.17 | 25.31 |
| New York and Rochester..... | 38 | 165 | 6.0 | 56.4 | 56.5 | 100.2 | .495 | 27.92 | 27.96 |
| Oklahoma City, Okla..... | 18 | 66 | 6.5 | 65.7 | 65.8 | 100.2 | .352 | 23.13 | 23.19 |
| Portland, Me..... | 15 | 53 | 6.9 | 58.4 | 58.7 | 100.5 | .432 | 25.23 | 25.35 |
| Providence, R. I..... | 18 | 73 | 6.4 | 54.3 | 54.4 | 100.2 | .443 | 24.05 | 24.08 |
| Richmond, Va..... | 14 | 71 | 6.3 | 62.8 | 62.5 | 99.5 | .354 | 22.23 | 22.15 |
| Trenton, N. J..... | 18 | 63 | 6.2 | 51.8 | 52.8 | 101.9 | .439 | 22.74 | 23.19 |
| Washington, D. C..... | 17 | 115 | 6.3 | 60.6 | 57.8 | 95.4 | .449 | 27.21 | 25.94 |
| Total..... | 736 | 2,960 | 6.5 | 60.0 | 59.5 | 99.2 | .393 | 23.58 | 23.39 |

Average and Classified Earnings per Hour

AVERAGE and classified earnings per hour are presented in Table 3 for the employees in each of the eight important occupations in the industry; for the group of "other employees"; and for all occupations combined. Average earnings per hour were computed for each employee by dividing the amount earned in one week by the number of hours actually worked in that week.

Each occupation group except that of the managers had a small number of employees earning an average of less than 10 cents per hour. Only three occupation groups (managers, operators, and operators' helpers) included any employees earning as much as 80 cents per hour. Among the managers, none earned less than 35 cents per hour, while 14 per cent earned an average of 80 cents or more per hour. At the other end of the scale were the porters, 8 per cent of whom earned less than 10 cents per hour and none of whom earned as much as 45 cents per hour.

Fourteen per cent of all the employees covered earned, on the average, less than 25 cents per hour and only about 8 per cent earned an average of 60 cents per hour or more.

TABLE 3.—AVERAGE AND CLASSIFIED HOURLY EARNINGS OF FILLING STATION EMPLOYEES IN 1931, BY OCCUPATION

| Occupation | Number of stations | Number of employees | Average earnings per hour | Per cent of employees whose average earnings per hour were— | | | | | | | | | | | | | | | | |
|-------------------------|--------------------|---------------------|---------------------------|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------|--|
| | | | | Under 10 cts. | 10 and under 15 cts. | 15 and under 20 cts. | 20 and under 25 cts. | 25 and under 30 cts. | 30 and under 35 cts. | 35 and under 40 cts. | 40 and under 45 cts. | 45 and under 50 cts. | 50 and under 55 cts. | 55 and under 60 cts. | 60 and under 65 cts. | 65 and under 70 cts. | 70 and under 75 cts. | 75 and under 80 cts. | 80 cts. and over | |
| | | | Cts. | | | | | | | | | | | | | | | | | |
| Car washers..... | 84 | 151 | 24.8 | 1 | 13 | 14 | 24 | 12 | 13 | 12 | 8 | 1 | 1 | 1 | | | | | | |
| Greasers..... | 164 | 280 | 39.3 | 1 | 3 | 6 | 3 | 7 | 11 | 11 | 15 | 16 | 9 | 8 | 6 | 1 | | | | |
| Managers..... | 60 | 68 | 63.1 | | | | | | | 1 | 1 | 12 | 12 | 24 | 7 | 12 | 12 | 4 | 14 | |
| Operators..... | 683 | 1,182 | 44.1 | (2) | (2) | 1 | 2 | 5 | 11 | 15 | 19 | 15 | 13 | 7 | 4 | 5 | 2 | 1 | 1 | |
| Operators' helpers..... | 475 | 1,039 | 36.2 | (2) | 1 | 5 | 7 | 13 | 21 | 17 | 14 | 9 | 7 | 4 | 2 | 1 | (2) | | (2) | |
| Porters..... | 55 | 72 | 19.3 | 8 | 10 | 28 | 38 | 8 | 3 | 4 | 1 | | | | | | | | | |
| Relief men..... | 51 | 52 | 40.9 | 2 | 2 | 4 | 4 | 6 | 13 | 15 | 8 | 17 | 12 | 6 | 2 | 4 | 6 | | | |
| Tire men..... | 35 | 56 | 30.0 | 4 | 9 | 16 | 18 | 2 | 14 | 14 | 5 | 5 | 4 | 7 | 2 | | | | | |
| Other employees..... | 28 | 60 | 40.4 | | 3 | 7 | 10 | 15 | 2 | 20 | 3 | 13 | 10 | 3 | 7 | 2 | 3 | 2 | | |
| Total..... | 736 | 2,960 | 39.3 | 1 | 2 | 5 | 6 | 8 | 14 | 15 | 15 | 12 | 9 | 6 | 3 | 3 | 1 | (2) | 1 | |

¹ Includes 6 per cent earning 85 and under 90 cents, and 1 per cent earning 90 cents and over.

² Less than one-half of 1 per cent.

Table 4 shows the number and per cent of employees in each classified group of average earnings per hour. At one end of the scale are three employees earning 5 but less than 6 cents and at the other extreme one employee earning \$1 or more per hour. The greatest number of employees were in the groups receiving from 25 cents to 65 cents an hour.

TABLE 4.—NUMBER AND PER CENT OF FILLING-STATION EMPLOYEES IN EACH CLASSIFIED GROUP OF EARNINGS PER HOUR, 1931

| Classified earnings per hour | Employees in all occupations | | Classified earnings per hour | Employees in all occupations | |
|------------------------------|------------------------------|----------|------------------------------|------------------------------|----------|
| | Number | Per cent | | Number | Per cent |
| 5 and under 6 cents..... | 3 | (1) | 30 and under 32½ cents..... | 209 | 7 |
| 6 and under 7 cents..... | 2 | (1) | 32½ and under 35 cents..... | 203 | 7 |
| 7 and under 8 cents..... | 2 | (1) | 35 and under 37½ cents..... | 197 | 7 |
| 8 and under 9 cents..... | 6 | (1) | 37½ and under 40 cents..... | 235 | 8 |
| 9 and under 10 cents..... | 5 | (1) | 40 and under 42½ cents..... | 261 | 9 |
| 10 and under 11 cents..... | 5 | (1) | 42½ and under 45 cents..... | 168 | 6 |
| 11 and under 12 cents..... | 9 | (1) | 45 and under 47½ cents..... | 201 | 7 |
| 12 and under 13 cents..... | 12 | (1) | 47½ and under 50 cents..... | 141 | 5 |
| 13 and under 14 cents..... | 9 | (1) | 50 and under 55 cents..... | 275 | 9 |
| 14 and under 15 cents..... | 17 | 1 | 55 and under 60 cents..... | 165 | 6 |
| 15 and under 16 cents..... | 13 | (1) | 60 and under 65 cents..... | 100 | 3 |
| 16 and under 17 cents..... | 31 | 1 | 65 and under 70 cents..... | 77 | 3 |
| 17 and under 18 cents..... | 40 | 1 | 70 and under 75 cents..... | 42 | 1 |
| 18 and under 19 cents..... | 37 | 1 | 75 and under 80 cents..... | 10 | (1) |
| 19 and under 20 cents..... | 23 | 1 | 80 and under 85 cents..... | 12 | (1) |
| 20 and under 21 cents..... | 62 | 2 | 85 and under 90 cents..... | 5 | (1) |
| 21 and under 22 cents..... | 33 | 1 | 90 and under 95 cents..... | 2 | (1) |
| 22 and under 23 cents..... | 29 | 1 | 95 cents and under \$1..... | 1 | (1) |
| 23 and under 24 cents..... | 34 | 1 | \$1 and under \$1.10..... | 1 | (1) |
| 24 and under 25 cents..... | 29 | 1 | | | |
| 25 and under 27½ cents..... | 103 | 3 | Total..... | 2,960 | 100 |
| 27½ and under 30 cents..... | 148 | 5 | | | |

¹ Less than one-half of 1 per cent.

Regular Full-Time Hours per Week

THE regular full-time hours per week of filling-station employees are not the same as the regular hours of operation of the establishment at which they are employed. A filling station could be, and many stations are, in operation 24 hours a day 7 days a week, and thus the regular hours of operation would be 168 hours per week. It was found in the bureau's study that the employees usually worked in two or more shifts, each employee having his own specified time of beginning and quitting work on each day of the week. No employee was supposed to work any but his own regular shift except in case of emergency.

The study showed that there is no uniformity in the regular daily or weekly hours of operation or of work in the stations in the different cities or even in the same city. Stations were generally in operation seven days each week, but the hours per day varied to a considerable extent with the location in the city of the individual station. A few stations did not conform to their schedule of regular hours, but remained open each night as long as there was profitable business. Others, located where there was much night traffic, were in operation 24 hours each day.

The full-time hours of labor, shown in Table 5 and in the preceding tables, are the regular scheduled shifts of employees; they include neither overtime nor time for meals.

Average full-time hours per week in each occupation were computed by dividing the total of the full-time hours of all employees in the occupation by the number of employees therein. In this computation no account was taken of overtime or part time.

The table shows for the employees in each occupation, and for the employees in all occupations combined, average full-time hours per week, also the per cent that the employees in each classified hours group formed of the total for all groups.

The full-time hours of 3 per cent of the employees in all occupations were less than 40 per week; those of 10 per cent were 48 per week; those of 7 per cent were 54 per week; those of 17 per cent were 56 per week; those of 6 per cent were 70 per week; and those of 2 per cent were 84 hours per week. Of the porters only 16 per cent had a full-time week of less than 56 hours; 18 per cent had one of 70 hours, and 10 per cent one of 84 hours. Of the relief men, 23 per cent had a full-time week of less than 40 hours and 25 per cent a 48-hour week. Among the managers the largest groups were those having a full-time week of 54 or 56 hours (31 and 26 per cent, respectively). Among the operators, the occupation most important numerically, 21 per cent had a 56-hour week and 12 per cent a full-time week of more than 56 but less than 60 hours.

The study revealed that 58 per cent of the 2,960 employees covered in this report had a nominal 7-day week; 6 per cent worked 7 days one week and 6 days the next; 32 per cent worked a 6-day week; 3 per cent had a nominal week of less than 6 days; and 1 per cent had a 7-day week with 1, 2, or 3 days off each month or every third or fourth Sunday off. Part of those on a schedule of less than 6 days per week alternated, working 5 days for two weeks and 4 days the third week, or 4 days one week and 3 days the next week, or 3 days one week and 2 days the next week.

TABLE 5.—AVERAGE AND CLASSIFIED FULL-TIME WEEKLY HOURS OF FILLING-STATION EMPLOYEES IN 1931, BY OCCUPATION

| Occupation | Number of stations | Number of employees | Average full-time hours per week | Per cent of employees whose full-time hours per week were— | | | | | | |
|-------------------------|--------------------|---------------------|----------------------------------|--|-----------------|----|----------------------|----|----------------------|----|
| | | | | Under 40 | 40 and under 48 | 48 | Over 48 and under 54 | 54 | Over 54 and under 56 | 56 |
| Car washers..... | 84 | 151 | 66.9 | 1 | ----- | 2 | 3 | 7 | ----- | 3 |
| Greasers..... | 164 | 280 | 59.9 | ----- | ----- | 9 | 8 | 16 | 4 | 12 |
| Managers..... | 60 | 68 | 57.3 | ----- | ----- | 9 | ----- | 31 | ----- | 26 |
| Operators..... | 683 | 1,182 | 61.0 | (1) | 1 | 9 | 8 | 4 | 4 | 21 |
| Operators' helpers..... | 475 | 1,039 | 57.7 | 6 | 2 | 14 | 3 | 6 | (1) | 16 |
| Porters..... | 55 | 72 | 65.1 | 3 | 1 | 1 | 8 | 3 | ----- | 15 |
| Relief men..... | 51 | 52 | 48.3 | 23 | ----- | 25 | 12 | 10 | 2 | 4 |
| Tire men..... | 35 | 56 | 67.9 | ----- | ----- | 2 | ----- | 2 | ----- | 5 |
| Other employees..... | 28 | 60 | 69.0 | 7 | 2 | 5 | ----- | 2 | ----- | 8 |
| Total..... | 736 | 2,960 | 60.0 | 3 | 1 | 10 | 5 | 7 | 2 | 17 |

| Occupation | Per cent of employees whose full-time hours per week were— | | | | | | | | | |
|-------------------------|--|-------|----------------------|-------|----------------------|-------|----------------------|----|----------------------|---------|
| | Over 56 and under 60 | 60 | Over 60 and under 63 | 63 | Over 63 and under 66 | 66 | Over 66 and under 70 | 70 | Over 70 and under 84 | Over 84 |
| Car washers..... | 8 | 6 | 8 | 4 | 10 | 8 | 1 | 7 | 25 | 8 |
| Greasers..... | 5 | 9 | 2 | 2 | 3 | 4 | 7 | 5 | 10 | 2 |
| Managers..... | 4 | 7 | 3 | 4 | 6 | 4 | 1 | 1 | ----- | 1 |
| Operators..... | 12 | 3 | 3 | 7 | 2 | 1 | 4 | 6 | 9 | 2 |
| Operators' helpers..... | 8 | 6 | 5 | 8 | 2 | 6 | 4 | 5 | 6 | 2 |
| Porters..... | 10 | ----- | ----- | ----- | 1 | 6 | 3 | 18 | 21 | 10 |
| Relief men..... | ----- | 8 | 2 | ----- | ----- | ----- | 2 | 2 | 8 | ----- |
| Tire men..... | 5 | 2 | ----- | 4 | 18 | 18 | 7 | 5 | 27 | 4 |
| Other employees..... | 5 | 12 | 18 | 3 | 5 | 17 | 7 | 3 | 7 | ----- |
| Total..... | 9 | 5 | 4 | 6 | 3 | 4 | 4 | 6 | 10 | 2 |

¹ Less than one-half of 1 per cent.

Wages and Hours of Labor in Metalliferous Mining, 1924 and 1931

THIS report is a summary of the results of studies by the Bureau of Labor Statistics of wages and hours of labor in the metalliferous mining industry in the United States in 1924 and 1931.¹ The 1924 study covered 137 mines and 38,196 wage earners, and the 1931 study 139 mines and 32,195 wage earners. The 137 mines covered in the 1924 survey included 117 underground and 20 open-pit mines; the same number of underground mines were studied in 1931, but 2 more open-pit mines were added. The basic wage data used in compiling this report were, except for a few mines, for a representative pay period in August, September, or October, 1924, and June, July, August, September, or October, 1931. The mines studied produced copper, gold, iron, lead, silver, zinc, and minor metals.

Table 1 shows the average full-time hours per week, earnings per hour, and average full-time earnings per week, in 1924 and 1931, in the mixed-ore mines of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, South Dakota, and Utah; the Michigan

¹ A more detailed report showing the results of the 1931 survey will be published later in bulletin form.

copper mines; the northern (Michigan and Minnesota) iron mines; the Alabama iron mines; and the Tri-State (Kansas, Missouri, and Oklahoma) lead and zinc mines. Averages are also given for all of these districts combined.

The average full-time hours per week of wage earners in this industry were 53.0 in 1924 and 51.6 in 1931. The average hourly earnings—55.9 cents—shown in 1924, remained unchanged in 1931. Average full-time weekly earnings, however, dropped from \$29.63 in 1924 to \$28.84 in 1931, due to the smaller average full-time hours per week in the latter year. These averages are for males only. Females were not employed in any of the mines.

Examination of the data for the various kinds of mines shows that, with the exception of the northern ore mines, the full-time hours in all groups decreased somewhat between 1924 and 1931, and in all but one group, the western mixed-ore mines, average earnings per hour also declined. Because of an increase in average full-time hours, the northern iron mines showed an increase in average full-time weekly earnings, although average hourly earnings decreased. The other four groups of mines showed decreases in such weekly earnings, in varying amounts.

In the Western mixed-ore mines average full-time hours per week were 53.8 in 1924 and 50.7 in 1931; average earnings per hour were 59.9 cents in 1924 and 60.8 cents in 1931; and full-time earnings per week were \$32.23 in 1924 and \$30.83 in 1931.

In the Michigan copper mines average full-time hours per week were 49.6 in 1924 and 49.4 in 1931; earnings per hour were 49.8 cents in 1924 and 44.3 cents in 1931; and full-time earnings per week were \$24.70 in 1924 and \$21.88 in 1931.

In the Northern iron mines average full-time hours per week were 52.8 in 1924 and 54.3 in 1931; earnings per hour were 56.8 cents in 1924 and 56.0 cents in 1931; and full-time earnings per week were \$29.99 in 1924 and \$30.41 in 1931.

In the Alabama iron mines average full-time hours per week were 60.6 in 1924 and 58.4 in 1931; average earnings per hour were 39.3 cents in 1924 and 37.2 cents in 1931; and full-time earnings per week were \$23.82 in 1924 and \$21.72 in 1931.

In the Tri-State lead and zinc mines average full-time hours per week were 48.6 in 1924 and 48.2 in 1931; earnings per hour were 55.2 cents in 1924 and 47.7 cents in 1931; and full-time earnings per week were \$26.83 in 1924 and \$22.99 in 1931.

TABLE 1.—AVERAGE HOURS AND EARNINGS OF EMPLOYEES IN METALLIFEROUS MINES, 1924 AND 1931, BY KIND OF MINE, DISTRICT, AND STATE

| Kind of mine or district and State | Number of— | | | | Average | | | | | |
|------------------------------------|----------------|------|--------------|--------|--------------------------|------|-------------------|---------|-----------------------------|---------|
| | Establishments | | Wage earners | | Full-time hours per week | | Earnings per hour | | Full-time earnings per week | |
| | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 |
| Western mixed ores: | | | | | | | | | | |
| Arizona..... | 8 | 9 | 3,662 | 3,969 | 52.4 | 48.8 | \$0.595 | \$0.679 | \$31.18 | \$33.14 |
| California..... | 6 | 8 | 1,397 | 1,688 | 51.7 | 50.2 | .594 | .593 | 30.71 | 29.77 |
| Colorado..... | 9 | 10 | 1,210 | 983 | 52.8 | 51.7 | .592 | .597 | 31.26 | 30.86 |
| Idaho..... | 4 | 4 | 1,386 | 1,621 | 54.4 | 47.5 | .693 | .581 | 37.70 | 27.60 |
| Montana..... | 5 | 5 | 3,084 | 2,495 | 52.7 | 48.2 | .666 | .681 | 35.10 | 32.82 |
| Nevada..... | 8 | 9 | 1,616 | 1,146 | 56.5 | 55.6 | .636 | .625 | 35.93 | 34.75 |
| New Mexico..... | 6 | 6 | 1,603 | 1,442 | 54.2 | 53.9 | .459 | .459 | 24.88 | 24.74 |
| South Dakota..... | | (1) | | (1) | | (1) | | (1) | | (1) |
| Utah..... | 4 | 9 | 2,853 | 2,214 | 56.0 | 52.5 | .560 | .515 | 31.36 | 27.04 |
| Total..... | 50 | 61 | 16,811 | 16,494 | 53.8 | 50.7 | .599 | .608 | 32.23 | 30.83 |
| Michigan copper..... | 6 | 6 | 4,689 | 3,734 | 49.6 | 49.4 | .498 | .443 | 24.70 | 21.88 |
| Northern iron: | | | | | | | | | | |
| Michigan..... | 24 | 10 | 6,102 | 2,244 | 50.3 | 50.8 | .566 | .602 | 28.47 | 30.58 |
| Minnesota..... | 23 | 29 | 4,983 | 4,577 | 55.5 | 56.0 | .570 | .545 | 31.64 | 30.52 |
| Total..... | 47 | 39 | 11,085 | 6,821 | 52.8 | 54.3 | .568 | .560 | 29.99 | 30.41 |
| Alabama iron..... | 8 | 8 | 2,678 | 2,132 | 60.6 | 58.4 | .393 | .372 | 23.82 | 21.72 |
| Tri-State lead and zinc: | | | | | | | | | | |
| Kansas..... | 3 | 5 | 311 | 325 | 49.4 | 48.7 | .520 | .405 | 25.69 | 19.72 |
| Missouri..... | 5 | 7 | 1,301 | 1,671 | 48.5 | 48.1 | .581 | .541 | 28.18 | 26.02 |
| Oklahoma..... | 18 | 13 | 1,321 | 1,018 | 48.7 | 48.3 | .521 | .398 | 25.37 | 19.22 |
| Total..... | 26 | 25 | 2,933 | 3,014 | 48.6 | 48.2 | .552 | .477 | 26.83 | 22.99 |
| Grand total..... | 137 | 139 | 38,196 | 32,195 | 53.0 | 51.6 | .559 | .559 | 29.63 | 28.84 |

¹ Data included in total.

Average Hours and Earnings, 1924 and 1931, by Kind of Work and Occupation

TABLE 2 shows the average full-time hours per week, earnings per hour, and full-time earnings per week of surface workers, underground workers, and those doing both underground and surface work.

For the underground mines are shown data for 22 important occupations in underground work; 11 occupations in surface work; and 12 other occupations the workers in which worked underground in some mines, on the surface in other mines, and in still other mines spent part of their working time underground and part on the surface. For the open-pit mines are shown data for each of 28 occupations. The group of "other employees," shown for both the underground and open-pit mines, includes occupations in which the number of wage earners in no occupation was sufficient to warrant separate tabulation.

In the underground occupations, which form the most important group in point of numbers employed, average full-time hours per week ranged by occupation in 1924 from 48.6 for contract drilling-machine operators to 56.5 for pump men, and in 1931 from 48.2 for roof trimmers to 56.5 for trackmen's helpers. In 4 occupations weekly hours were longer and in the other 18 shorter in 1931 than in 1924.

In the various underground occupations, average earnings per hour ranged in 1924 from 42.0 cents for trackmen's helpers to 72.9 cents for contract drilling-machine operators; in 1931 the range was from

40.3 cents for drilling-machine operators' helpers to 69.5 cents for contract drilling-machine operators. Comparing 1931 with 1924, it is seen that in 7 occupations the average hourly earnings had increased, and in the other 15 occupations had decreased.

Average full-time earnings per week ranged in 1924 from \$23.23 for trackmen's helpers to \$35.43 for contract drilling-machine operators; in 1931 the range was from \$20.63 for drilling-machine operators' helpers to \$34.08 for contract drilling-machine operators. Six occupations showed greater average full-time weekly earnings in 1931 than in 1924, while in the other 16 occupations such weekly earnings were less than in 1924.

TABLE 2.—AVERAGE HOURS AND EARNINGS OF EMPLOYEES IN METALLIFEROUS MINES, 1924 AND 1931, BY KIND OF WORK AND OCCUPATION

| Kind of work and occupation | Number of establishments | | Number of wage earners | | Average full-time hours per week | | Average earnings per hour | | Average full-time earnings per week | |
|---|--------------------------|------|------------------------|-------|----------------------------------|------|---------------------------|---------|-------------------------------------|---------|
| | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 |
| <i>Underground mines</i> | | | | | | | | | | |
| <i>Underground work:</i> | | | | | | | | | | |
| Cagers..... | 35 | 42 | 118 | 157 | 51.6 | 50.1 | \$0.627 | \$0.570 | \$32.35 | \$28.56 |
| Chute loaders..... | 37 | 31 | 596 | 195 | 49.1 | 50.5 | .538 | .563 | 26.42 | 28.43 |
| Drilling-machine operators, company..... | 106 | 95 | 5,327 | 3,684 | 51.4 | 49.5 | .594 | .646 | 30.53 | 31.98 |
| Drilling-machine operators, contract..... | 61 | 53 | 5,916 | 3,945 | 48.6 | 49.1 | .729 | .694 | 35.43 | 34.08 |
| Drilling-machine operators' helpers..... | 33 | 32 | 559 | 497 | 52.1 | 51.2 | .447 | .403 | 23.29 | 20.63 |
| Drivers, mule..... | 38 | 31 | 349 | 247 | 51.5 | 48.4 | .474 | .500 | 24.41 | 24.20 |
| Hoistmen..... | 47 | 49 | 185 | 197 | 53.7 | 51.0 | .593 | .538 | 31.84 | 27.44 |
| Loading-machine operators..... | 14 | 18 | 175 | 227 | 51.4 | 50.6 | .588 | .616 | 30.22 | 31.17 |
| Motormen..... | 78 | 75 | 749 | 833 | 50.9 | 49.6 | .575 | .574 | 29.27 | 28.47 |
| Muckers..... | 82 | 104 | 4,110 | 4,656 | 52.7 | 50.2 | .554 | .505 | 29.20 | 25.35 |
| Nippers..... | 48 | 38 | 288 | 188 | 51.9 | 48.8 | .496 | .537 | 25.74 | 26.21 |
| Powder men..... | 47 | 56 | 115 | 111 | 52.1 | 50.1 | .573 | .510 | 29.85 | 25.55 |
| Pump men..... | 73 | 81 | 335 | 371 | 56.5 | 52.8 | .526 | .530 | 29.72 | 27.98 |
| Roof trimmers..... | 26 | 26 | 176 | 75 | 52.3 | 48.2 | .553 | .470 | 28.92 | 22.65 |
| Skippers..... | 54 | 63 | 229 | 242 | 50.8 | 49.8 | .572 | .563 | 29.06 | 28.04 |
| Station men..... | 18 | 12 | 153 | 135 | 51.1 | 52.5 | .569 | .566 | 29.08 | 29.72 |
| Timbermen..... | 92 | 86 | 2,055 | 2,926 | 51.5 | 48.7 | .604 | .602 | 31.11 | 29.32 |
| Timbermen's helpers..... | 44 | 38 | 715 | 607 | 52.8 | 50.6 | .551 | .512 | 29.09 | 25.91 |
| Trackmen..... | 86 | 78 | 667 | 355 | 49.4 | 49.1 | .542 | .529 | 26.77 | 25.97 |
| Trackmen's helpers..... | 27 | 27 | 248 | 196 | 55.3 | 56.5 | .420 | .410 | 23.23 | 23.17 |
| Trammers..... | 97 | 62 | 2,028 | 635 | 50.9 | 48.9 | .550 | .524 | 28.00 | 25.62 |
| Trip riders..... | 55 | 45 | 395 | 417 | 50.8 | 49.9 | .517 | .537 | 26.26 | 26.80 |
| <i>Surface work:</i> | | | | | | | | | | |
| Drivers..... | 42 | 11 | 104 | 48 | 57.3 | 57.2 | .406 | .369 | 23.26 | 21.11 |
| Dryhouse men..... | 67 | 51 | 179 | 134 | 58.9 | 55.2 | .410 | .404 | 24.15 | 22.30 |
| Dumpers..... | 14 | 32 | 58 | 119 | 55.5 | 55.3 | .508 | .458 | 28.19 | 25.33 |
| Engineers, stationary..... | 27 | 16 | 79 | 61 | 57.5 | 53.2 | .515 | .579 | 29.61 | 30.80 |
| Firemen, stationary..... | 50 | 25 | 277 | 206 | 60.5 | 50.6 | .455 | .441 | 27.53 | 22.31 |
| Hoistmen..... | 103 | 100 | 483 | 490 | 56.4 | 53.4 | .560 | .586 | 31.58 | 31.29 |
| Timber framers..... | 54 | 42 | 138 | 119 | 55.6 | 54.4 | .536 | .532 | 29.80 | 28.94 |
| Tool dressers..... | 50 | 46 | 110 | 158 | 53.8 | 51.8 | .584 | .553 | 31.42 | 28.65 |
| Topmen..... | 113 | 81 | 1,742 | 815 | 55.3 | 54.9 | .428 | .400 | 23.67 | 21.96 |
| Truck operators..... | 40 | 59 | 73 | 115 | 55.1 | 54.5 | .514 | .484 | 28.32 | 26.38 |
| Watchmen..... | 74 | 68 | 190 | 245 | 64.8 | 58.2 | .452 | .464 | 29.29 | 27.00 |
| <i>Surface and underground work:</i> | | | | | | | | | | |
| Blacksmiths..... | 110 | 107 | 292 | 239 | 54.4 | 53.8 | .593 | .563 | 32.26 | 30.29 |
| Blacksmiths' helpers..... | 90 | 74 | 295 | 170 | 54.5 | 53.3 | .462 | .463 | 25.18 | 24.68 |
| Carpenters..... | 88 | 78 | 362 | 231 | 54.9 | 54.2 | .571 | .557 | 31.35 | 30.19 |
| Carpenters' helpers..... | 46 | 26 | 153 | 123 | 56.4 | 56.6 | .426 | .430 | 24.03 | 24.34 |
| Compressor men..... | 59 | 52 | 154 | 136 | 59.9 | 52.9 | .556 | .527 | 33.30 | 27.88 |
| Electricians..... | 78 | 82 | 194 | 308 | 54.7 | 53.1 | .622 | .629 | 34.02 | 33.40 |
| Electricians' helpers..... | 41 | 31 | 95 | 104 | 53.5 | 53.8 | .521 | .512 | 27.87 | 27.55 |
| Machinists..... | 89 | 82 | 375 | 360 | 54.2 | 52.4 | .600 | .603 | 32.52 | 31.60 |
| Machinists' helpers..... | 63 | 39 | 231 | 131 | 54.1 | 53.4 | .479 | .496 | 25.91 | 26.49 |
| Oilers..... | 41 | 33 | 148 | 123 | 54.7 | 52.6 | .445 | .443 | 24.34 | 23.30 |
| Ore sorters..... | 24 | 12 | 141 | 70 | 52.7 | 49.2 | .528 | .482 | 27.83 | 23.71 |
| Pipemen..... | 89 | 67 | 328 | 264 | 52.0 | 51.7 | .562 | .559 | 29.22 | 28.90 |
| Other employees..... | 117 | 111 | 2,139 | 2,102 | 53.1 | 51.5 | .590 | .587 | 31.33 | 30.23 |

TABLE 2.—AVERAGE HOURS AND EARNINGS OF EMPLOYEES IN METALLIFEROUS MINES, 1924 AND 1931, BY KIND OF WORK AND OCCUPATION—Continued

| Kind of work and occupation | Number of establishments | | Number of wage earners | | Average full-time hours per week | | Average earnings per hour | | Average full-time earnings per week | |
|--|--------------------------|------|------------------------|--------|----------------------------------|------|---------------------------|---------|-------------------------------------|---------|
| | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 | 1924 | 1931 |
| <i>Open-pit mines</i> | | | | | | | | | | |
| Blacksmiths..... | 17 | 22 | 140 | 56 | 57.7 | 58.5 | \$0.619 | \$0.603 | \$35.72 | \$35.28 |
| Blacksmiths' helpers..... | 12 | 13 | 124 | 43 | 57.4 | 57.1 | .498 | .475 | 28.59 | 27.12 |
| Carpenters..... | 14 | 20 | 79 | 57 | 58.7 | 58.5 | .570 | .587 | 33.46 | 34.34 |
| Carpenters' helpers..... | 12 | 8 | 63 | 42 | 57.8 | 56.4 | .470 | .547 | 27.17 | 30.85 |
| Drillers, hand..... | | 7 | | 26 | | 60.0 | | .464 | | 27.84 |
| Drilling-machine operators..... | 17 | 18 | 229 | 181 | 58.5 | 58.3 | .544 | .526 | 31.82 | 30.67 |
| Drilling-machine operators' helpers..... | 12 | 15 | 146 | 101 | 58.0 | 57.3 | .508 | .507 | 29.46 | 29.05 |
| Dumpers..... | 12 | 16 | 192 | 68 | 58.2 | 59.8 | .385 | .400 | 22.41 | 23.92 |
| Electricians..... | | 17 | | 78 | | 58.2 | | .641 | | 37.31 |
| Laborers..... | 17 | 17 | 372 | 423 | 58.1 | 57.4 | .352 | .379 | 20.45 | 21.75 |
| Locomotive engineers..... | 20 | 22 | 319 | 234 | 58.3 | 58.7 | .675 | .671 | 39.35 | 39.39 |
| Locomotive firemen..... | 18 | 19 | 406 | 230 | 58.7 | 57.8 | .515 | .488 | 30.23 | 28.21 |
| Machinists..... | 17 | 20 | 192 | 125 | 57.7 | 58.1 | .604 | .628 | 34.85 | 36.49 |
| Machinists' helpers..... | 9 | 10 | 231 | 49 | 57.7 | 57.1 | .499 | .511 | 28.79 | 29.18 |
| Oilers..... | | 13 | | 47 | | 60.3 | | .478 | | 28.82 |
| Pipemen..... | | 10 | | 24 | | 57.7 | | .539 | | 31.10 |
| Pitmen..... | 20 | 22 | 573 | 171 | 58.4 | 58.7 | .426 | .425 | 24.88 | 24.95 |
| Pump men..... | | 15 | | 37 | | 59.2 | | .536 | | 31.73 |
| Repair men..... | | 17 | | 168 | | 57.7 | | .507 | | 29.25 |
| Shot flirers..... | 12 | 15 | 54 | 42 | 59.7 | 57.8 | .475 | .507 | 28.36 | 29.30 |
| Shovel cranemen..... | 20 | 15 | 150 | 62 | 58.0 | 58.1 | .666 | .680 | 38.63 | 39.51 |
| Shovel engineers..... | 20 | 20 | 157 | 79 | 58.2 | 59.0 | .917 | .945 | 53.37 | 55.76 |
| Shovel firemen..... | 20 | 16 | 231 | 67 | 60.2 | 62.2 | .504 | .464 | 30.34 | 28.86 |
| Switchmen..... | 15 | 12 | 216 | 142 | 57.6 | 56.7 | .446 | .452 | 25.69 | 25.63 |
| Track men..... | 20 | 21 | 1,686 | 874 | 57.9 | 58.4 | .393 | .397 | 22.75 | 23.18 |
| Trip riders..... | 15 | 18 | 332 | 190 | 58.2 | 58.5 | .510 | .509 | 29.68 | 29.78 |
| Truck operators..... | | 15 | | 33 | | 57.7 | | .479 | | 27.64 |
| Watchmen..... | 17 | 18 | 148 | 65 | 63.7 | 64.3 | .451 | .444 | 28.73 | 28.55 |
| Other employees..... | 20 | 21 | 776 | 714 | 58.9 | 58.5 | .514 | .550 | 30.27 | 32.18 |
| All employees..... | 137 | 139 | 38,196 | 32,195 | 53.0 | 51.6 | .559 | .559 | 29.63 | 28.84 |

Average Hours and Earnings in Six Specified Occupations, 1931, by Kind of Mine and State

AVERAGE hours and earnings for 1931 are presented in Table 3 for the wage earners in each of six of the more important occupations—five underground and one surface—in underground mines.

The full-time hours per week for the 3,143 company drilling-machine operators in the 58 Western mixed ore mines studied in 1931 averaged 49.6 and ranged by States from a low of 46.5 to a high of 55.5. These operators earned an average of 65.8 cents per hour, the average in the various States ranging from 44.5 to 77.4 cents per hour. Their average full-time earnings per week were \$32.64, the average in the different States ranging from \$23.14 to \$38.41.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN SIX OCCUPATIONS IN METALLIFEROUS MINES, 1931, BY KIND OF MINE AND STATE

| Occupation, kind of mine, and State | Number of establishments | Number of wage earners | Average full-time hours per week | Average earnings per hour | Average full-time earnings per week |
|---|--------------------------|------------------------|----------------------------------|---------------------------|-------------------------------------|
| Drilling-machine operators, company (underground): | | | | | |
| Western mixed ores— | | | | | |
| Arizona..... | 9 | 1,138 | 47.3 | \$0.774 | \$36.61 |
| California..... | 8 | 471 | 50.3 | .600 | 30.18 |
| Colorado..... | 10 | 142 | 51.4 | .613 | 31.51 |
| Idaho..... | 4 | 299 | 46.5 | .601 | 27.95 |
| Montana..... | 5 | 201 | 48.7 | .608 | 29.61 |
| Nevada..... | 8 | 251 | 55.5 | .692 | 38.41 |
| New Mexico..... | 5 | 142 | 52.0 | .445 | 23.14 |
| South Dakota..... | 1 | (1) | (1) | (1) | (1) |
| Utah..... | 8 | 315 | 50.5 | .534 | 26.97 |
| Total..... | 58 | 3,143 | 49.6 | .658 | 32.64 |
| Michigan copper..... | 3 | 69 | 48.0 | .433 | 20.78 |
| Northern iron— | | | | | |
| Michigan..... | 3 | 145 | 41.9 | .806 | 33.77 |
| Minnesota..... | 7 | 53 | 49.5 | .646 | 31.98 |
| Total..... | 10 | 198 | 44.0 | .765 | 33.66 |
| Alabama iron..... | 5 | 95 | 59.7 | .486 | 29.01 |
| Tri-State lead and zinc..... | 19 | 179 | 48.0 | .403 | 19.34 |
| All districts..... | 95 | 3,684 | 49.5 | .646 | 31.98 |
| Drilling-machine operators, contract (underground): | | | | | |
| Western mixed ores— | | | | | |
| Arizona..... | 1 | 8 | 52.5 | .792 | 41.58 |
| California..... | 1 | 60 | 48.0 | .894 | 42.91 |
| Colorado..... | 5 | 55 | 54.0 | .826 | 44.60 |
| Montana..... | 5 | 483 | 48.1 | .760 | 36.56 |
| New Mexico..... | 2 | 60 | 53.8 | .520 | 27.98 |
| South Dakota..... | 1 | (1) | (1) | (1) | (1) |
| Utah..... | 2 | 27 | 48.0 | .738 | 35.42 |
| Total..... | 17 | 1,004 | 51.2 | .791 | 40.50 |
| Michigan copper..... | 5 | 618 | 48.0 | .572 | 27.46 |
| Northern iron— | | | | | |
| Michigan..... | 9 | 848 | 48.0 | .714 | 34.27 |
| Minnesota..... | 13 | 948 | 48.8 | .709 | 34.60 |
| Total..... | 22 | 1,796 | 48.4 | .711 | 34.41 |
| Alabama iron..... | 3 | 38 | 54.2 | .512 | 27.75 |
| Tri-State lead and zinc..... | 6 | 489 | 48.0 | .575 | 27.60 |
| All districts..... | 53 | 3,945 | 49.1 | .695 | 34.12 |
| Muckers (underground): | | | | | |
| Western mixed ores— | | | | | |
| Arizona..... | 9 | 329 | 47.7 | .611 | 29.14 |
| California..... | 8 | 357 | 48.7 | .532 | 25.91 |
| Colorado..... | 10 | 212 | 50.7 | .552 | 27.99 |
| Idaho..... | 4 | 318 | 46.3 | .536 | 24.82 |
| Montana..... | 5 | 491 | 48.0 | .699 | 33.55 |
| Nevada..... | 8 | 125 | 54.6 | .589 | 32.16 |
| New Mexico..... | 5 | 282 | 53.8 | .374 | 20.12 |
| South Dakota..... | 1 | (1) | (1) | (1) | (1) |
| Utah..... | 8 | 367 | 49.8 | .472 | 23.51 |
| Total..... | 58 | 2,579 | 49.6 | .553 | 27.43 |
| Michigan copper..... | 5 | 508 | 48.0 | .456 | 21.89 |
| Northern iron— | | | | | |
| Michigan..... | 7 | 19 | 48.0 | .530 | 25.44 |
| Minnesota..... | 4 | 32 | 48.0 | .566 | 27.17 |
| Total..... | 11 | 51 | 48.0 | .552 | 26.50 |
| Alabama iron..... | 5 | 687 | 57.1 | .365 | 20.84 |
| Tri-State lead and zinc..... | 25 | 831 | 48.0 | .447 | 21.46 |
| All districts..... | 104 | 4,656 | 50.2 | .505 | 25.35 |

¹ Data included in total.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN SIX OCCUPATIONS IN METALLIFEROUS MINES, 1931, BY KIND OF MINE AND STATE—Continued

| Occupation, kind of mine, and State | Number of establishments | Number of wage earners | Average full-time hours per week | Average earnings per hour | Average full-time earnings per week |
|-------------------------------------|--------------------------|------------------------|----------------------------------|---------------------------|-------------------------------------|
| Timbermen (underground): | | | | | |
| Western mixed ores: | | | | | |
| Arizona..... | 9 | 376 | 49.5 | \$0.736 | \$36.43 |
| California..... | 7 | 117 | 49.1 | .617 | 30.29 |
| Colorado..... | 10 | 89 | 50.7 | .622 | 31.54 |
| Idaho..... | 4 | 262 | 47.2 | .554 | 26.15 |
| Montana..... | 5 | 556 | 48.0 | .721 | 34.61 |
| Nevada..... | 7 | 42 | 55.1 | .652 | 35.93 |
| New Mexico..... | 4 | 71 | 51.5 | .517 | 26.63 |
| South Dakota..... | 1 | (1) | (1) | (1) | (1) |
| Utah..... | 6 | 123 | 51.3 | .504 | 25.96 |
| Total..... | 53 | 1,665 | 49.1 | .655 | 32.16 |
| Michigan copper..... | 6 | 834 | 48.0 | .446 | 21.41 |
| Northern iron— | | | | | |
| Michigan..... | 10 | 138 | 47.8 | .591 | 28.25 |
| Minnesota..... | 11 | 270 | 48.1 | .629 | 30.25 |
| Total..... | 21 | 408 | 48.0 | .615 | 29.52 |
| Alabama iron..... | 5 | 17 | 57.3 | .415 | 23.78 |
| Tri-State lead and zinc..... | 1 | 2 | 48.0 | .375 | 18.00 |
| All districts..... | 86 | 2,926 | 48.7 | .602 | 29.32 |
| Topmen (surface): | | | | | |
| Western mixed ores— | | | | | |
| Arizona..... | 9 | 117 | 49.8 | .355 | 17.68 |
| California..... | 8 | 44 | 51.6 | .510 | 26.32 |
| Colorado..... | 7 | 62 | 54.3 | .547 | 29.70 |
| Idaho..... | 3 | 22 | 47.6 | .503 | 23.94 |
| Montana..... | 4 | 27 | 48.3 | .529 | 25.55 |
| Nevada..... | 6 | 20 | 55.1 | .525 | 28.93 |
| New Mexico..... | 4 | 29 | 53.5 | .337 | 18.03 |
| South Dakota..... | 1 | (1) | (1) | (1) | (1) |
| Utah..... | 3 | 11 | 51.6 | .436 | 22.50 |
| Total..... | 45 | 338 | 51.4 | .449 | 23.08 |
| Michigan copper..... | 6 | 128 | 54.0 | .359 | 19.39 |
| Northern iron— | | | | | |
| Michigan..... | 10 | 101 | 58.3 | .414 | 24.14 |
| Minnesota..... | 12 | 90 | 60.0 | .411 | 24.66 |
| Total..... | 22 | 191 | 59.1 | .412 | 24.35 |
| Alabama iron..... | 5 | 148 | 58.7 | .264 | 15.50 |
| Tri-State lead and zinc..... | 3 | 10 | 49.2 | .277 | 13.63 |
| All districts..... | 81 | 815 | 54.9 | .400 | 21.96 |
| Trammers (underground): | | | | | |
| Western mixed ores— | | | | | |
| Arizona..... | 3 | 29 | 49.4 | .555 | 27.42 |
| California..... | 6 | 72 | 50.2 | .546 | 27.41 |
| Colorado..... | 6 | 53 | 50.7 | .572 | 29.00 |
| Idaho..... | 3 | 23 | 47.3 | .531 | 25.12 |
| Montana..... | 5 | 213 | 48.1 | .595 | 28.62 |
| Nevada..... | 3 | 21 | 55.2 | .590 | 32.57 |
| New Mexico..... | 5 | 49 | 49.0 | .392 | 19.21 |
| Utah..... | 4 | 23 | 48.0 | .471 | 22.61 |
| Total..... | 35 | 483 | 49.1 | .554 | 27.20 |
| Michigan copper..... | 2 | 65 | 48.0 | .407 | 19.54 |
| Northern iron— | | | | | |
| Michigan..... | 3 | 21 | 48.0 | .517 | 24.82 |
| Minnesota..... | 8 | 27 | 48.9 | .499 | 24.40 |
| Total..... | 11 | 48 | 48.5 | .507 | 24.59 |
| Tri-State lead and zinc..... | 13 | 39 | 48.0 | .332 | 15.94 |
| All districts..... | 61 | 635 | 48.9 | .524 | 25.62 |

¹ Data included in total.

Classified Average Earnings per Hour, 1931

TABLE 4 gives the number and the per cent of laborers and of wage earners in all occupations combined, in each classified group of average earnings per hour. As the table shows, nearly half (48 per cent) of the laborers were in the groups earning 37½ but less than 42½ cents per hour; none earned as much as 55 cents per hour. Considering the whole group of wage earners in this industry, it is seen that 49 per cent earned between 50 and 70 cents per hour. Thirteen per cent of the laborers and 2 per cent of all the wage earners in all occupations earned less than 30 cents an hour.

TABLE 4.—NUMBER AND PER CENT OF LABORERS AND OF WAGE EARNERS IN ALL OCCUPATIONS IN METALLIFEROUS MINING, EARNING EACH CLASSIFIED AMOUNT PER HOUR, 1931

| Classified earnings | Laborers | | Wage earners in all occupations | | Classified earnings | Laborers | | Wage earners in all occupations | |
|-----------------------------|----------|----------|---------------------------------|----------|------------------------------|----------|----------|---------------------------------|----------|
| | Num-ber | Per cent | Num-ber | Per cent | | Num-ber | Per cent | Num-ber | Per cent |
| 13 and under 14 cents..... | ----- | ----- | 1 | (1) | 60 and under 65 cents..... | ----- | ----- | 2,709 | 8 |
| 15 and under 16 cents..... | ----- | ----- | 1 | (1) | 65 and under 70 cents..... | ----- | ----- | 3,059 | 10 |
| 16 and under 17 cents..... | ----- | ----- | 1 | (1) | 70 and under 75 cents..... | ----- | ----- | 1,721 | 5 |
| 17 and under 18 cents..... | ----- | ----- | 1 | (1) | 75 and under 80 cents..... | ----- | ----- | 970 | 3 |
| 18 and under 19 cents..... | ----- | ----- | 5 | (1) | 80 and under 85 cents..... | ----- | ----- | 762 | 2 |
| 19 and under 20 cents..... | ----- | ----- | 3 | (1) | 85 and under 90 cents..... | ----- | ----- | 491 | 2 |
| 20 and under 21 cents..... | 34 | 8 | 72 | (1) | 90 and under 95 cents..... | ----- | ----- | 247 | 1 |
| 21 and under 22 cents..... | 3 | 1 | 24 | (1) | 95 cents and under \$1..... | ----- | ----- | 146 | (1) |
| 22 and under 23 cents..... | 13 | 3 | 54 | (1) | \$1 and under \$1.10..... | ----- | ----- | 328 | 1 |
| 23 and under 24 cents..... | ----- | ----- | 50 | (1) | \$1.10 and under \$1.20..... | ----- | ----- | 90 | (1) |
| 24 and under 25 cents..... | ----- | ----- | 59 | (1) | \$1.20 and under \$1.30..... | ----- | ----- | 80 | (1) |
| 25 and under 27½ cents..... | 6 | 1 | 127 | (1) | \$1.30 and under \$1.40..... | ----- | ----- | 38 | (1) |
| 27½ and under 30 cents..... | ----- | ----- | 272 | 1 | \$1.40 and under \$1.50..... | ----- | ----- | 8 | (1) |
| 30 and under 32½ cents..... | 63 | 15 | 580 | 2 | \$1.50 and under \$1.60..... | ----- | ----- | 32 | (1) |
| 32½ and under 35 cents..... | 10 | 2 | 518 | 2 | \$1.60 and under \$1.70..... | ----- | ----- | 11 | (1) |
| 35 and under 37½ cents..... | 15 | 4 | 901 | 3 | \$1.70 and under \$1.80..... | ----- | ----- | 1 | (1) |
| 37½ and under 40 cents..... | 96 | 23 | 1,778 | 6 | \$1.80 and under \$1.90..... | ----- | ----- | 1 | (1) |
| 40 and under 42½ cents..... | 107 | 25 | 2,871 | 9 | \$2 and under \$2.25..... | ----- | ----- | 4 | (1) |
| 42½ and under 45 cents..... | 7 | 2 | 1,425 | 4 | \$2.50 and under \$2.75..... | ----- | ----- | 8 | (1) |
| 45 and under 47½ cents..... | 24 | 6 | 1,952 | 6 | \$2.75 and under \$3..... | ----- | ----- | 1 | (1) |
| 47½ and under 50 cents..... | 36 | 9 | 857 | 3 | \$3 and under \$3.50..... | ----- | ----- | 1 | (1) |
| 50 and under 55 cents..... | 9 | 2 | 5,067 | 16 | | | | | |
| 55 and under 60 cents..... | ----- | ----- | 4,868 | 15 | Total..... | 423 | ----- | 32,195 | ----- |

¹ Less than one-half of 1 per cent.

Wages and Hours of Labor in the Slaughtering and Meat-Packing Industry, 1931

LATE in 1931 the Bureau of Labor Statistics made a study of earnings and hours of labor of wage earners in the slaughtering and meat-packing industry in the United States, summary data for which are here given.¹ Wage figures covering 53,555 wage earners of 90 representative meat-packing establishments in 26 States were collected from the records of the establishments by agents of the bureau, for a weekly pay period in October, November, or December. Averages were computed from these figures and are presented in Table 1 along with averages for studies by the bureau in 1917 and in each of the odd years from 1921 to 1931 inclusive, for the wage earners of each sex separately and for both sexes combined, in 13 of the more important departments in the industry, i. e., cattle killing, hog killing, sheep and calf killing, offal (other than hides and casings), hide, casing, fresh-beef cutting, fresh-pork cutting, lard and oleo-oil, sausage, cured-

¹ More detailed information will be published later in bulletin form.

meat, canning, and maintenance and repair departments. The number of wage earners covered in 1931 is 43.7 per cent of the 122,505 reported in the industry in the United States by Census of Manufactures in 1929.

In 1931, the male employees in this industry earned an average of 47 cents per hour and \$21.57 per week, as compared with 52.5 cents and \$25.45 in 1929. Average earnings per hour of males were 5.5 cents or 10.5 per cent less in 1931 than in 1929. In 1931 the female employees earned an average of 32.1 cents per hour and \$13.61 per week, as compared with 36.9 cents and \$16.54 in 1929. Average earnings per hour of females were 4.8 cents or 13 per cent less in 1931 than in 1929. In 1931 both sexes combined earned an average of 44.9 cents per hour and \$20.38 in one week, while in 1929 the figures were 50.4 cents and \$24.18, respectively. Average earnings per hour for both sexes combined or for the industry were 5.5 cents or 10.9 per cent less in 1931 than in 1929.

The 53,555 males and females who were employed in the 90 establishments during the weekly pay period covered by the study in 1931 worked an average of 5.5 days in the week. (In computing average days for the week, each day or part of a day worked during the week was counted as a day and the total of such days in the week was divided by the total number of wage earners on the pay roll during the week.) The average full-time hours per week were 49.2, but the employees actually worked an average of 45.4 hours in the week or 92.3 per cent of full time. At full time, at the hourly earnings shown above—44.9 cents—they would have earned an average of \$22.09 or \$1.71 more than they actually earned in the week. A smaller percentage of full time was worked in 1931 than in any other year studied except 1921 (when 89 per cent of full time was worked). The highest proportion of full-time operation was reached in 1929 (97.6 per cent).

TABLE 1.—AVERAGE HOURS AND EARNINGS IN THE SLAUGHTERING AND MEAT PACKING-INDUSTRY, BY SEX, IN SPECIFIED YEARS, 1917 TO 1931

| Sex and year | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|---------------------------|--------------------------|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | Average number | Per cent of full time | | | |
| Males: | | | | | | | | | |
| 1917 | 66 | 55,089 | | | 54.3 | | \$0.271 | | \$14.73 |
| 1921 | 34 | 30,075 | 5.5 | 48.4 | 43.2 | 89.3 | .511 | \$24.73 | 22.10 |
| 1923 | 38 | 45,083 | 5.6 | 52.2 | 49.1 | 94.1 | .499 | 26.05 | 24.55 |
| 1925 | 86 | 52,702 | 5.7 | 50.2 | 48.2 | 96.0 | .507 | 25.45 | 24.45 |
| 1927 | 86 | 50,207 | 5.7 | 49.5 | 47.7 | 96.4 | .517 | 25.59 | 24.68 |
| 1929 | 90 | 52,796 | 5.7 | 49.3 | 48.5 | 98.4 | .525 | 25.88 | 25.45 |
| 1931 | 90 | 45,523 | 5.5 | 49.2 | 45.9 | 93.3 | .470 | 23.12 | 21.57 |
| Females: | | | | | | | | | |
| 1917 | 51 | 6,576 | | | 53.4 | | .178 | | 8.60 |
| 1921 | 31 | 3,329 | 5.7 | 48.3 | 44.3 | 91.7 | .365 | 17.63 | 15.57 |
| 1923 | 37 | 6,112 | 5.5 | 52.8 | 45.1 | 85.4 | .361 | 19.06 | 16.28 |
| 1925 | 78 | 6,595 | 5.6 | 49.4 | 44.7 | 90.5 | .359 | 17.73 | 16.04 |
| 1927 | 78 | 7,156 | 5.6 | 49.1 | 44.5 | 90.6 | .363 | 17.82 | 16.16 |
| 1929 | 83 | 8,803 | 5.6 | 48.9 | 44.9 | 91.8 | .369 | 18.04 | 16.54 |
| 1931 | 82 | 8,032 | 5.4 | 48.9 | 42.4 | 86.7 | .321 | 15.70 | 13.61 |
| Males and females: | | | | | | | | | |
| 1917 | 66 | 61,665 | | | 54.2 | | .262 | | 14.07 |
| 1921 | 34 | 33,404 | 5.5 | 48.4 | 43.1 | 89.0 | .497 | 24.05 | 21.45 |
| 1923 | 38 | 51,195 | 5.6 | 52.3 | 48.7 | 93.1 | .484 | 25.31 | 23.55 |
| 1925 | 86 | 59,297 | 5.7 | 50.1 | 47.8 | 95.4 | .492 | 24.65 | 23.52 |
| 1927 | 86 | 57,363 | 5.7 | 49.4 | 47.3 | 95.7 | .499 | 24.65 | 23.62 |
| 1929 | 90 | 61,599 | 5.7 | 49.2 | 48.0 | 97.6 | .504 | 24.80 | 24.18 |
| 1931 | 90 | 53,555 | 5.5 | 49.2 | 45.4 | 92.3 | .449 | 22.09 | 20.38 |

Time Worked and Earnings, 1929 and 1931, by Department

TABLE 2 shows average number of days on which wage earners worked, average full-time and actual hours and earnings in one week, average earnings per hour, and per cent of full time worked in week, 1929 and 1931, by department and sex, for the wage earners in all occupations combined except a very few in each of the 13 major departments of the industry, for the group of "miscellaneous wage earners" of all departments, and for the industry as a whole so far as covered in this report. The figures for each department include all wage earners in the occupations distinctive of the several departments. The group of "miscellaneous employees" includes a few occupations, such as branders and stampers, scalers and weighers, doormen, elevator men, and door and other boys, who were employed in various departments. They were grouped because of the limited number in each occupation and department.

Among the male employees in the cattle-killing department, from 1929 to 1931 the average number of days worked in one week fell from 5.4 to 5.2; full-time hours per week rose from 48.8 to 48.9; hours actually worked in one week fell from 44.1 to 41.8; earnings per hour declined from 59.9 to 53.2 cents; full-time earnings per week fell from \$29.23 to \$26.01; and actual earnings in one week declined from \$26.38 to \$22.24. Thus it is seen that in all cases, except that of full-time hours per week, the averages for the males employed were less in 1931 than in 1929. All the averages for females in this department were less in 1931 than in 1929. Males worked 90.4 per cent of full time in 1929 and 85.5 per cent in 1931, while females worked 84.4 per cent of full time in 1929 and only 60.9 per cent in 1931.

The figures for this department fairly represent the trend in the other departments in the table.

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY DEPARTMENT AND SEX

| Department and sex | Year | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|--|------|--------------------------|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Cattle-killing department: | | | | | | | | | | |
| Males..... | 1929 | 78 | 3,649 | 5.4 | 48.8 | 44.1 | 90.4 | \$0.599 | \$29.23 | \$26.38 |
| | 1931 | 77 | 3,087 | 5.2 | 48.9 | 41.8 | 85.5 | .532 | 26.01 | 22.24 |
| Females..... | 1929 | 7 | 19 | 5.3 | 50.0 | 42.2 | 84.4 | .406 | 20.30 | 17.12 |
| | 1931 | 5 | 16 | 3.9 | 48.8 | 29.7 | 60.9 | .283 | 13.81 | 8.42 |
| Male and females..... | 1929 | 78 | 3,668 | 5.4 | 48.8 | 44.0 | 90.2 | .598 | 29.18 | 26.33 |
| | 1931 | 78 | 3,103 | 5.2 | 48.9 | 41.8 | 85.5 | .531 | 25.97 | 22.17 |
| Hog-killing department: | | | | | | | | | | |
| Males..... | 1929 | 73 | 3,286 | 5.6 | 49.9 | 46.7 | 93.6 | .529 | 26.40 | 24.71 |
| | 1931 | 76 | 3,211 | 5.5 | 50.0 | 44.9 | 89.8 | .478 | 23.90 | 21.46 |
| Females..... | 1929 | 15 | 46 | 5.5 | 49.5 | 43.6 | 88.1 | .357 | 17.67 | 15.56 |
| | 1931 | 19 | 47 | 5.2 | 48.6 | 43.2 | 88.9 | .296 | 14.39 | 12.78 |
| Males and females..... | 1929 | 73 | 3,332 | 5.6 | 49.9 | 46.7 | 93.6 | .527 | 26.30 | 24.59 |
| | 1931 | 76 | 3,258 | 5.5 | 50.0 | 44.9 | 89.8 | .475 | 23.75 | 21.33 |
| Sheep and calf killing department: | | | | | | | | | | |
| Males..... | 1929 | 42 | 1,311 | 5.5 | 48.4 | 43.4 | 89.7 | .580 | 28.07 | 25.14 |
| | 1931 | 50 | 1,602 | 5.4 | 48.7 | 43.2 | 88.7 | .489 | 23.81 | 21.13 |
| Offal department (other than hides and casings): | | | | | | | | | | |
| Males..... | 1929 | 86 | 3,181 | 5.6 | 49.2 | 46.5 | 94.5 | .510 | 25.09 | 23.73 |
| | 1931 | 85 | 2,855 | 5.4 | 49.3 | 44.9 | 91.1 | .452 | 22.28 | 20.29 |
| Female..... | 1929 | 46 | 527 | 5.4 | 49.2 | 41.8 | 85.0 | .363 | 17.86 | 15.16 |
| | 1931 | 48 | 393 | 5.2 | 49.0 | 41.0 | 83.7 | .314 | 15.39 | 12.87 |
| Males and females..... | 1929 | 86 | 3,708 | 5.5 | 49.2 | 45.9 | 93.3 | .491 | 24.16 | 22.51 |
| | 1931 | 86 | 3,248 | 5.4 | 49.3 | 44.4 | 90.1 | .438 | 21.49 | 19.39 |

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE SLAUGHTERING AND MEAT PACKING INDUSTRY, 1929 AND 1931, BY DEPARTMENT AND SEX—Continued

| Department and sex | Year | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|--|------|--------------------------|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Hide department: | | | | | | | | | | |
| Males..... | 1929 | 75 | 1,200 | 5.2 | 48.4 | 42.4 | 87.6 | \$0.502 | \$24.30 | \$21.29 |
| | 1931 | 68 | 1,136 | 4.8 | 48.7 | 38.9 | 79.9 | .433 | 21.09 | 16.84 |
| Casing department: | | | | | | | | | | |
| Males..... | 1929 | 79 | 3,126 | 5.5 | 49.1 | 46.8 | 95.3 | .524 | 25.73 | 24.51 |
| | 1931 | 83 | 2,748 | 5.4 | 49.3 | 45.3 | 91.9 | .464 | 22.88 | 21.02 |
| Females..... | 1929 | 49 | 825 | 5.6 | 48.7 | 45.6 | 93.6 | .386 | 18.80 | 17.59 |
| | 1931 | 45 | 673 | 5.4 | 48.7 | 43.4 | 89.1 | .309 | 15.05 | 13.43 |
| Males and females..... | 1929 | 80 | 3,951 | 5.6 | 49.0 | 46.5 | 94.9 | .496 | 24.30 | 23.07 |
| | 1931 | 83 | 3,421 | 5.4 | 49.2 | 44.9 | 91.3 | .435 | 21.40 | 19.53 |
| Cutting or fresh beef department: | | | | | | | | | | |
| Males..... | 1929 | 79 | 4,998 | 5.7 | 48.9 | 50.1 | 102.5 | .537 | 26.26 | 26.88 |
| | 1931 | 75 | 4,308 | 5.6 | 49.0 | 46.5 | 94.9 | .473 | 23.18 | 22.00 |
| Females..... | 1929 | 11 | 50 | 5.4 | 47.2 | 41.2 | 87.3 | .328 | 15.48 | 13.52 |
| | 1931 | 9 | 30 | 5.2 | 48.4 | 39.0 | 80.6 | .295 | 14.28 | 11.50 |
| Males and females..... | 1929 | 79 | 5,048 | 5.7 | 48.9 | 50.0 | 102.2 | .535 | 26.16 | 26.75 |
| | 1931 | 75 | 4,338 | 5.6 | 49.0 | 46.5 | 94.9 | .472 | 23.13 | 21.93 |
| Cutting or fresh pork department: | | | | | | | | | | |
| Males..... | 1929 | 79 | 5,684 | 5.7 | 49.8 | 47.6 | 95.6 | .514 | 25.60 | 24.47 |
| | 1931 | 79 | 5,654 | 5.6 | 49.5 | 46.7 | 94.3 | .466 | 23.07 | 21.76 |
| Females..... | 1929 | 55 | 1,319 | 5.6 | 49.3 | 42.5 | 86.2 | .395 | 19.47 | 16.78 |
| | 1931 | 54 | 1,286 | 5.3 | 48.9 | 40.1 | 82.0 | .349 | 17.07 | 14.02 |
| Males and females..... | 1929 | 79 | 7,003 | 5.7 | 49.7 | 46.6 | 93.8 | .494 | 24.55 | 23.02 |
| | 1931 | 79 | 6,940 | 5.5 | 49.4 | 45.5 | 92.1 | .447 | 22.08 | 20.33 |
| Lard and oleo-oil department: | | | | | | | | | | |
| Males..... | 1929 | 86 | 2,431 | 5.8 | 49.2 | 51.0 | 103.7 | .486 | 23.91 | 24.79 |
| | 1931 | 83 | 1,819 | 5.6 | 49.4 | 48.8 | 98.8 | .442 | 21.83 | 21.54 |
| Females..... | 1929 | 49 | 270 | 5.5 | 49.4 | 45.4 | 91.9 | .345 | 17.04 | 15.68 |
| | 1931 | 53 | 291 | 5.6 | 49.3 | 44.6 | 90.5 | .295 | 14.54 | 13.16 |
| Males and females..... | 1929 | 86 | 2,701 | 5.8 | 49.2 | 50.4 | 102.4 | .474 | 23.32 | 23.88 |
| | 1931 | 83 | 2,110 | 5.6 | 49.4 | 48.2 | 97.6 | .423 | 20.90 | 20.38 |
| Sausage department: | | | | | | | | | | |
| Males..... | 1929 | 83 | 3,262 | 5.8 | 49.5 | 52.2 | 105.5 | .507 | 25.10 | 26.47 |
| | 1931 | 82 | 2,656 | 5.6 | 49.7 | 47.8 | 96.2 | .458 | 22.76 | 21.90 |
| Females..... | 1929 | 81 | 2,844 | 5.6 | 48.8 | 46.0 | 94.3 | .366 | 17.86 | 16.83 |
| | 1931 | 79 | 2,412 | 5.5 | 49.0 | 43.4 | 88.6 | .319 | 15.63 | 13.83 |
| Males and females..... | 1929 | 83 | 6,106 | 5.7 | 49.2 | 49.3 | 100.2 | .446 | 21.94 | 21.98 |
| | 1931 | 82 | 5,068 | 5.5 | 49.4 | 45.7 | 92.5 | .395 | 19.51 | 18.06 |
| Cured-meat department: | | | | | | | | | | |
| Males..... | 1929 | 83 | 8,198 | 5.8 | 49.9 | 49.9 | 100.0 | .477 | 23.81 | 23.81 |
| | 1931 | 84 | 6,686 | 5.7 | 49.5 | 47.5 | 96.0 | .432 | 21.38 | 20.52 |
| Females..... | 1929 | 61 | 684 | 5.7 | 49.4 | 46.1 | 93.3 | .352 | 17.39 | 16.23 |
| | 1931 | 62 | 519 | 5.6 | 49.0 | 42.2 | 86.1 | .304 | 14.90 | 12.84 |
| Males and females..... | 1929 | 83 | 8,882 | 5.8 | 49.9 | 49.6 | 99.4 | .468 | 23.35 | 23.23 |
| | 1931 | 84 | 7,205 | 5.7 | 49.5 | 47.1 | 95.2 | .424 | 20.99 | 19.97 |
| Canning department: | | | | | | | | | | |
| Males..... | 1929 | 57 | 1,378 | 5.6 | 48.3 | 49.6 | 102.7 | .478 | 23.09 | 23.08 |
| | 1931 | 62 | 939 | 5.5 | 48.9 | 47.0 | 96.1 | .433 | 21.17 | 20.32 |
| Females..... | 1929 | 63 | 2,166 | 5.6 | 48.4 | 45.0 | 93.0 | .360 | 17.42 | 16.21 |
| | 1931 | 70 | 2,141 | 5.4 | 48.9 | 42.5 | 86.9 | .322 | 15.75 | 13.67 |
| Males and females..... | 1929 | 65 | 3,544 | 5.6 | 48.4 | 46.8 | 96.7 | .409 | 19.80 | 19.12 |
| | 1931 | 74 | 3,080 | 5.4 | 48.9 | 43.8 | 89.6 | .358 | 17.51 | 15.69 |
| Maintenance and repair department: | | | | | | | | | | |
| Males..... | 1929 | 90 | 8,787 | 5.8 | 49.0 | 49.0 | 100.0 | .583 | 28.59 | 28.59 |
| | 1931 | 89 | 6,414 | 5.7 | 48.7 | 45.4 | 93.2 | .535 | 26.05 | 24.29 |
| Miscellaneous wage earners, all departments: | | | | | | | | | | |
| Males..... | 1929 | 87 | 2,305 | 5.9 | 49.4 | 52.1 | 105.5 | .471 | 23.27 | 24.50 |
| | 1931 | 86 | 2,408 | 5.7 | 49.2 | 48.8 | 99.2 | .412 | 20.27 | 20.11 |
| Females..... | 1929 | 29 | 53 | 5.5 | 51.2 | 45.2 | 88.3 | .378 | 19.35 | 17.07 |
| | 1931 | 51 | 224 | 5.5 | 48.9 | 42.5 | 86.9 | .318 | 15.55 | 13.51 |
| Males and females..... | 1929 | 87 | 2,358 | 5.9 | 49.4 | 51.9 | 105.1 | .469 | 23.17 | 24.33 |
| | 1931 | 86 | 2,632 | 5.7 | 49.1 | 48.3 | 98.4 | .405 | 19.89 | 19.55 |
| Total, all departments: | | | | | | | | | | |
| Males..... | 1929 | 90 | 52,796 | 5.7 | 49.3 | 48.5 | 98.4 | .525 | 25.88 | 25.45 |
| | 1931 | 90 | 45,523 | 5.5 | 49.2 | 45.9 | 93.3 | .470 | 23.12 | 21.57 |
| Females..... | 1929 | 83 | 8,803 | 5.6 | 48.9 | 44.9 | 91.8 | .369 | 18.04 | 16.14 |
| | 1931 | 82 | 8,032 | 5.4 | 48.9 | 42.4 | 86.7 | .321 | 15.70 | 13.61 |
| Males and females..... | 1929 | 90 | 61,599 | 5.7 | 49.2 | 48.0 | 97.6 | .504 | 24.80 | 24.58 |
| | 1931 | 90 | 53,555 | 5.5 | 49.2 | 45.4 | 92.3 | .449 | 22.09 | 20.38 |

Time Worked and Earnings, 1929 and 1931, by Department and Occupation

AVERAGE days, hours, and earnings in 1929 and 1931 and the per cent that average hours actually worked in one week was of average full-time hours per week are shown in Table 3 for each of the various occupations in the cattle-killing, hog-killing, casing, sausage, and canning departments of the industry. The other eight departments and the group of "miscellaneous wage earners" of all departments were omitted for lack of space, but will appear later in a bulletin of the bureau.

The table shows that in 1931 washers and wipers and laborers, males, with an average of 40.8 cents, earned less, and floormen or siders, males, with an average of 80 cents, earned more per hour than was earned by males in any of the other 32 occupations in the cattle-killing department. In 1929 washers and wipers earned an average of 47.6 cents per hour, laborers an average of 46.6 cents, and floormen or siders an average of 88.2 cents per hour. The average earnings per hour of males in each of the 35 occupations in this department were less in 1931 than in 1929. Females were employed in this department as carcass wipers, bruise and tail trimmers, neck rag inserters or laborers. They, as a group, earned an average of 28.3 cents an hour in 1931 and 40.6 cents in 1929.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION

Cattle-killing department

| Sex and occupation | Year | Number of establishments | Number of wage earners | Average days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|---|------|--------------------------|------------------------|-------------------------------|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Males | | | | | | | | | | |
| Drivers and penners..... | 1929 | 53 | 161 | 5.8 | 49.5 | 47.8 | 96.6 | \$0.528 | \$26.14 | \$25.26 |
| | 1931 | 47 | 89 | 5.8 | 49.0 | 49.5 | 101.0 | .465 | 22.79 | 23.01 |
| Knockers..... | 1929 | 64 | 85 | 5.5 | 49.0 | 45.0 | 91.8 | .568 | 27.83 | 25.57 |
| | 1931 | 58 | 71 | 5.4 | 48.9 | 43.6 | 89.2 | .496 | 24.25 | 21.63 |
| Shacklers or slingers..... | 1929 | 37 | 62 | 5.5 | 48.4 | 43.3 | 89.5 | .557 | 26.96 | 24.14 |
| | 1931 | 35 | 56 | 5.0 | 49.1 | 39.4 | 80.2 | .479 | 23.52 | 18.90 |
| Head holders..... | 1929 | 3 | 3 | 4.7 | 49.3 | 35.7 | 72.4 | .753 | 37.12 | 26.87 |
| | 1931 | 5 | 7 | 4.6 | 49.3 | 35.3 | 71.6 | .601 | 29.63 | 21.21 |
| Stickers..... | 1929 | 25 | 36 | 5.7 | 48.8 | 43.7 | 89.5 | .670 | 32.70 | 29.28 |
| | 1931 | 29 | 40 | 5.4 | 49.4 | 43.9 | 88.9 | .542 | 26.77 | 23.80 |
| Headers..... | 1929 | 51 | 106 | 5.5 | 48.8 | 44.8 | 91.8 | .644 | 31.43 | 28.89 |
| | 1931 | 59 | 95 | 5.3 | 49.1 | 41.9 | 85.3 | .592 | 29.07 | 24.83 |
| Droppers and pritchers-up..... | 1929 | 36 | 59 | 5.3 | 48.4 | 42.4 | 87.6 | .532 | 25.75 | 22.57 |
| | 1931 | 37 | 55 | 5.0 | 48.7 | 39.5 | 81.1 | .461 | 22.45 | 18.24 |
| Foot skimmers..... | 1929 | 38 | 85 | 5.5 | 48.4 | 44.6 | 92.1 | .568 | 27.49 | 25.32 |
| | 1931 | 42 | 80 | 5.0 | 48.6 | 40.4 | 83.1 | .479 | 23.28 | 19.34 |
| Leg breakers..... | 1929 | 57 | 144 | 5.4 | 48.7 | 43.1 | 88.5 | .580 | 28.25 | 24.98 |
| | 1931 | 63 | 143 | 5.1 | 48.7 | 40.7 | 83.6 | .512 | 24.93 | 20.85 |
| Rippers-open..... | 1929 | 13 | 15 | 5.8 | 49.9 | 48.3 | 96.8 | .582 | 29.04 | 28.14 |
| | 1931 | 15 | 17 | 5.6 | 48.9 | 46.2 | 94.5 | .533 | 26.06 | 24.65 |
| Gullet raisers..... | 1929 | 10 | 12 | 5.7 | 48.5 | 44.1 | 90.9 | .506 | 24.54 | 22.32 |
| | 1931 | 13 | 16 | 5.1 | 49.3 | 39.7 | 80.5 | .412 | 20.31 | 16.38 |
| Caul pullers..... | 1929 | 25 | 41 | 5.1 | 48.9 | 42.3 | 86.5 | .574 | 28.07 | 24.26 |
| | 1931 | 20 | 25 | 5.3 | 48.6 | 43.9 | 90.3 | .470 | 22.84 | 20.60 |
| Floormen or siders..... | 1929 | 66 | 254 | 5.5 | 48.7 | 44.1 | 90.6 | .882 | 42.95 | 38.87 |
| | 1931 | 70 | 234 | 5.2 | 48.9 | 41.2 | 84.3 | .800 | 39.12 | 32.98 |
| Breast or brisket breakers and sawyers..... | 1929 | 41 | 56 | 5.6 | 49.2 | 46.4 | 94.3 | .544 | 26.76 | 25.27 |
| | 1931 | 43 | 62 | 5.0 | 48.9 | 39.0 | 79.8 | .499 | 24.40 | 19.47 |
| Crotch breakers..... | 1929 | 21 | 29 | 5.4 | 48.1 | 41.3 | 85.9 | .536 | 25.78 | 22.15 |
| | 1931 | 21 | 30 | 5.1 | 48.2 | 41.7 | 86.5 | .488 | 23.52 | 20.34 |

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Cattle-killing department—Continued

| Sex and occupation | Year | Number of establishments | Number of wage earners | Average days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|---|------|--------------------------|------------------------|-------------------------------|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Males—Continued | | | | | | | | | | |
| Hoisters..... | 1929 | 37 | 97 | 5.2 | 48.8 | 41.6 | 85.2 | \$0.538 | \$26.25 | \$22.40 |
| | 1931 | 34 | 71 | 5.0 | 49.2 | 40.0 | 81.3 | .450 | 22.14 | 17.99 |
| Tail rippers and pullers..... | 1929 | 33 | 40 | 5.4 | 49.1 | 43.7 | 89.0 | .553 | 27.15 | 24.15 |
| | 1931 | 35 | 44 | 4.9 | 48.9 | 37.1 | 75.9 | .494 | 24.16 | 18.30 |
| Rumpers..... | 1929 | 57 | 100 | 5.6 | 49.1 | 44.9 | 91.4 | .755 | 37.07 | 33.87 |
| | 1931 | 59 | 100 | 5.3 | 49.1 | 41.8 | 85.1 | .684 | 33.58 | 28.58 |
| Fell cutters..... | 1929 | 31 | 75 | 5.5 | 48.1 | 43.2 | 89.8 | .690 | 33.19 | 29.84 |
| | 1931 | 30 | 68 | 5.3 | 48.8 | 41.5 | 85.0 | .594 | 28.99 | 24.61 |
| Fell pullers and beaters..... | 1929 | 22 | 54 | 5.4 | 48.6 | 42.3 | 87.0 | .526 | 25.56 | 22.26 |
| | 1931 | 23 | 42 | 5.2 | 48.9 | 41.5 | 84.9 | .469 | 22.93 | 19.45 |
| Backers..... | 1929 | 60 | 109 | 5.3 | 48.7 | 43.1 | 88.5 | .789 | 38.42 | 34.03 |
| | 1931 | 55 | 82 | 5.2 | 48.9 | 40.7 | 83.2 | .710 | 34.72 | 28.88 |
| Gutters and bung droppers..... | 1929 | 61 | 112 | 5.5 | 48.9 | 44.6 | 91.2 | .598 | 29.24 | 26.72 |
| | 1931 | 62 | 114 | 5.2 | 49.1 | 41.4 | 84.3 | .517 | 25.38 | 21.40 |
| Shank skinners..... | 1929 | 19 | 34 | 5.4 | 49.2 | 44.6 | 90.7 | .595 | 29.27 | 26.56 |
| | 1931 | 13 | 25 | 5.0 | 49.0 | 39.3 | 80.2 | .516 | 25.28 | 20.24 |
| Hide droppers..... | 1929 | 59 | 139 | 5.4 | 48.9 | 43.4 | 88.8 | .708 | 34.62 | 30.71 |
| | 1931 | 65 | 119 | 5.2 | 48.9 | 41.2 | 84.3 | .617 | 30.17 | 25.43 |
| Tail sawyers..... | 1929 | 48 | 82 | 5.5 | 49.0 | 43.6 | 89.0 | .595 | 29.16 | 25.97 |
| | 1931 | 46 | 61 | 5.3 | 48.5 | 41.9 | 86.4 | .533 | 25.85 | 22.31 |
| Splitters..... | 1929 | 65 | 145 | 5.6 | 48.7 | 45.8 | 94.0 | .879 | 42.81 | 40.25 |
| | 1931 | 66 | 123 | 5.3 | 48.9 | 42.1 | 86.1 | .780 | 38.14 | 32.85 |
| Chuck splitters..... | 1929 | 36 | 49 | 5.6 | 49.0 | 46.8 | 95.5 | .626 | 30.67 | 29.25 |
| | 1931 | 37 | 47 | 5.1 | 48.4 | 42.9 | 88.6 | .571 | 27.64 | 24.50 |
| Scribers..... | 1929 | 39 | 52 | 5.5 | 48.5 | 44.6 | 92.0 | .555 | 26.92 | 24.76 |
| | 1931 | 37 | 48 | 5.4 | 49.5 | 42.4 | 85.7 | .451 | 22.32 | 19.15 |
| Trimmers of bruises, rounds, necks, skirts, and tails..... | 1929 | 41 | 145 | 5.4 | 48.3 | 43.6 | 90.3 | .537 | 25.94 | 23.40 |
| | 1931 | 42 | 129 | 5.1 | 48.6 | 42.0 | 86.4 | .452 | 21.97 | 19.02 |
| Utility men ¹ | 1929 | 52 | 150 | 5.7 | 49.7 | 47.4 | 95.4 | .693 | 34.44 | 32.84 |
| | 1931 | 47 | 77 | 5.5 | 48.6 | 43.5 | 89.5 | .634 | 30.81 | 27.60 |
| Washers and wipers..... | 1929 | 54 | 180 | 5.4 | 48.8 | 43.8 | 89.8 | .476 | 23.23 | 20.81 |
| | 1931 | 55 | 169 | 5.1 | 48.6 | 41.0 | 84.4 | .408 | 19.83 | 16.73 |
| Butchers, general ² | 1929 | (²) | (²) | (²) | (²) | (²) | (²) | (²) | (²) | (²) |
| | 1931 | 20 | 49 | 5.6 | 50.4 | 47.3 | 93.8 | .676 | 34.07 | 32.02 |
| Tonguers..... | 1929 | 33 | 41 | 5.5 | 49.3 | 46.5 | 94.3 | .552 | 27.21 | 25.70 |
| | 1931 | 27 | 34 | 5.1 | 48.3 | 40.3 | 83.4 | .440 | 21.25 | 17.74 |
| Laborers ³ | 1929 | 73 | 830 | 5.3 | 48.6 | 42.9 | 88.3 | .466 | 22.65 | 20.00 |
| | 1931 | 67 | 603 | 5.2 | 49.0 | 42.3 | 86.3 | .408 | 19.99 | 17.24 |
| Truckers..... | 1929 | 32 | 67 | 5.2 | 49.5 | 43.2 | 87.3 | .483 | 23.91 | 20.86 |
| | 1931 | 31 | 62 | 5.3 | 49.6 | 42.2 | 85.1 | .417 | 20.68 | 17.58 |
| Females | | | | | | | | | | |
| Carcass wipers, bruise and tail trimmers, neck rag inserters, and laborers..... | 1929 | 7 | 19 | 5.3 | 50.0 | 42.2 | 84.4 | .406 | 20.30 | 17.12 |
| | 1931 | 5 | 16 | 3.9 | 48.8 | 29.7 | 60.9 | .283 | 13.81 | 8.42 |

Hog-killing department

| | | | | | | | | | | |
|-----------------------------|------|----|-----|-----|------|------|------|---------|---------|---------|
| <i>Males</i> | | | | | | | | | | |
| Laborers ⁴ | 1929 | 70 | 841 | 5.6 | 49.8 | 46.4 | 93.2 | \$0.443 | \$22.06 | \$20.56 |
| | 1931 | 70 | 702 | 5.5 | 49.6 | 44.8 | 90.3 | .400 | 19.84 | 17.90 |
| Shacklers..... | 1929 | 65 | 145 | 5.6 | 49.7 | 44.9 | 90.3 | .571 | 28.38 | 25.62 |
| | 1931 | 65 | 139 | 5.5 | 50.7 | 46.3 | 91.3 | .493 | 25.00 | 22.82 |
| Sticklers..... | 1929 | 64 | 75 | 5.8 | 50.0 | 48.2 | 96.4 | .645 | 32.25 | 31.08 |
| | 1931 | 66 | 80 | 5.6 | 50.0 | 44.8 | 89.6 | .565 | 28.25 | 25.31 |
| Scalders ⁵ | 1929 | 70 | 314 | 5.7 | 50.2 | 47.7 | 95.0 | .516 | 25.90 | 24.63 |
| | 1931 | 66 | 277 | 5.6 | 50.4 | 46.4 | 92.1 | .475 | 23.94 | 22.07 |

¹ Included general butchers in 1929.² Included as utility men in 1929.³ Includes floor cleaners, mark heads, spread cattle, tie guts, laundry men, taggers, etc.⁴ Includes drivers, penners, steamers, singers, washers, aitchbone breakers, and toe pullers.⁵ Includes tubmen, droppers, gamb cutters, polemen, and duckers.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Hog-killing department—Continued

| Sex and occupation | Year | Number of establishments | Number of wage earners | Average days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|--|------|--------------------------|------------------------|-------------------------------|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Males—Continued | | | | | | | | | | |
| Hookers-on | 1929 | 55 | 137 | 5.6 | 50.2 | 46.1 | 91.8 | \$0.500 | \$25.10 | \$23.08 |
| | 1931 | 60 | 178 | 5.5 | 50.0 | 43.7 | 87.4 | .444 | 22.20 | 19.38 |
| Shavers and scrapers | 1929 | 70 | 583 | 5.6 | 49.9 | 45.2 | 90.6 | .528 | 26.35 | 23.89 |
| | 1931 | 70 | 645 | 5.4 | 50.1 | 43.1 | 86.0 | .480 | 24.05 | 20.68 |
| Headers | 1929 | 65 | 123 | 5.8 | 49.8 | 46.3 | 93.0 | .598 | 29.78 | 27.69 |
| | 1931 | 64 | 115 | 5.5 | 50.1 | 45.8 | 91.4 | .538 | 26.95 | 24.62 |
| Gutters, bung droppers, and rippers-open | 1929 | 70 | 246 | 5.8 | 50.0 | 47.7 | 95.4 | .602 | 30.10 | 28.71 |
| | 1931 | 70 | 267 | 5.6 | 50.3 | 45.6 | 90.7 | .527 | 26.51 | 24.03 |
| Ham facers | 1929 | 55 | 65 | 5.7 | 49.9 | 45.6 | 91.4 | .580 | 28.94 | 26.43 |
| | 1931 | 64 | 78 | 5.6 | 50.1 | 44.7 | 89.2 | .533 | 26.70 | 23.81 |
| Splitters | 1929 | 68 | 178 | 5.8 | 49.9 | 50.1 | 100.4 | .654 | 32.63 | 32.75 |
| | 1931 | 67 | 182 | 5.6 | 49.8 | 46.5 | 93.4 | .583 | 29.03 | 27.10 |
| Leaf lard pullers | 1929 | 60 | 112 | 5.6 | 49.7 | 45.4 | 91.3 | .525 | 26.09 | 23.83 |
| | 1931 | 67 | 107 | 5.6 | 50.0 | 45.6 | 91.2 | .470 | 23.50 | 21.47 |
| Leaf lard scrapers | 1929 | 37 | 69 | 5.4 | 49.6 | 44.3 | 89.3 | .468 | 23.21 | 20.73 |
| | 1931 | 37 | 59 | 5.3 | 49.7 | 41.6 | 83.7 | .412 | 20.48 | 17.14 |
| Bruise trimmers, head removers, and kidney pullers | 1929 | 50 | 112 | 5.6 | 50.4 | 46.2 | 91.7 | .521 | 26.26 | 24.06 |
| | 1931 | 55 | 133 | 5.6 | 50.5 | 44.4 | 87.9 | .472 | 23.84 | 20.95 |
| Utility men | 1929 | 63 | 235 | 5.6 | 49.8 | 49.4 | 99.2 | .615 | 30.63 | 30.38 |
| | 1931 | 56 | 193 | 5.6 | 49.2 | 47.2 | 95.9 | .557 | 27.40 | 26.28 |
| Truckers | 1929 | 29 | 51 | 5.4 | 51.0 | 47.4 | 92.9 | .453 | 23.10 | 21.46 |
| | 1931 | 31 | 56 | 5.4 | 50.4 | 45.9 | 91.1 | .399 | 20.11 | 18.31 |
| Females | | | | | | | | | | |
| Kidney pullers, shavers, singers, neck brushers, and spreaders | 1929 | 15 | 46 | 5.5 | 49.5 | 43.6 | 88.1 | .357 | 17.67 | 15.56 |
| | 1931 | 19 | 47 | 5.2 | 48.6 | 43.2 | 88.9 | .296 | 14.39 | 12.78 |

Casing department

| | | | | | | | | | | |
|---|------|----|-----|-----|------|------|-------|---------|---------|---------|
| <i>Males</i> | | | | | | | | | | |
| Casing pullers or runners..... | 1929 | 74 | 686 | 5.6 | 49.2 | 46.8 | 95.1 | \$0.532 | \$26.17 | \$24.89 |
| | 1931 | 76 | 714 | 5.5 | 49.6 | 44.5 | 89.7 | .476 | 23.61 | 21.16 |
| Strippers..... | 1929 | 61 | 312 | 5.5 | 49.3 | 47.3 | 95.9 | .498 | 24.55 | 23.56 |
| | 1931 | 69 | 289 | 5.4 | 49.1 | 45.7 | 93.1 | .429 | 21.06 | 19.58 |
| Fatters and slimers..... | 1929 | 71 | 598 | 5.5 | 48.9 | 46.0 | 94.1 | .548 | 26.80 | 25.25 |
| | 1931 | 72 | 526 | 5.3 | 49.1 | 44.3 | 90.2 | .486 | 23.86 | 21.53 |
| Turners..... | 1929 | 54 | 157 | 5.4 | 48.5 | 45.4 | 93.6 | .518 | 25.12 | 23.53 |
| | 1931 | 46 | 98 | 5.3 | 48.8 | 43.5 | 89.1 | .441 | 21.52 | 19.19 |
| Blowers, graders, and inspectors..... | 1929 | 58 | 238 | 5.5 | 48.9 | 46.9 | 95.9 | .517 | 25.28 | 24.26 |
| | 1931 | 61 | 220 | 5.4 | 49.3 | 46.1 | 93.5 | .463 | 22.83 | 21.36 |
| Measurers and bunchers..... | 1929 | 36 | 88 | 5.7 | 48.8 | 47.9 | 98.2 | .512 | 24.99 | 24.48 |
| | 1931 | 38 | 86 | 5.5 | 50.2 | 47.5 | 94.6 | .440 | 22.09 | 20.92 |
| Salts and packers..... | 1929 | 52 | 215 | 5.7 | 48.8 | 48.7 | 99.8 | .529 | 25.82 | 25.74 |
| | 1931 | 58 | 177 | 5.7 | 48.9 | 49.1 | 100.4 | .474 | 23.18 | 23.24 |
| Trimmers of casings..... | 1929 | 59 | 224 | 5.5 | 49.6 | 46.7 | 94.2 | .538 | 26.68 | 25.11 |
| | 1931 | 65 | 258 | 5.4 | 49.0 | 44.9 | 91.6 | .469 | 22.98 | 21.04 |
| Blowers and tiers of bladders and weasands..... | 1929 | 17 | 28 | 5.4 | 48.3 | 48.3 | 100.0 | .537 | 25.97 | 25.97 |
| | 1931 | 11 | 17 | 5.6 | 48.4 | 44.8 | 92.6 | .456 | 22.07 | 20.41 |
| General workers..... | 1929 | 51 | 142 | 5.7 | 49.3 | 50.5 | 102.4 | .597 | 29.43 | 30.13 |
| | 1931 | 48 | 82 | 5.7 | 49.2 | 50.9 | 103.5 | .568 | 27.95 | 28.92 |
| Laborers ⁷ | 1929 | 39 | 154 | 5.5 | 49.1 | 46.0 | 93.7 | .442 | 21.70 | 20.30 |
| | 1931 | 44 | 128 | 5.2 | 49.3 | 43.3 | 87.8 | .394 | 19.42 | 17.09 |
| Cleaners and washers of bladders, weasands, and chitterlings..... | 1929 | 53 | 222 | 5.4 | 49.5 | 45.7 | 92.3 | .492 | 24.35 | 22.51 |
| | 1931 | 45 | 105 | 5.7 | 49.7 | 45.2 | 90.9 | .412 | 20.48 | 18.61 |
| Truckers..... | 1929 | 21 | 62 | 5.0 | 49.0 | 43.1 | 88.0 | .446 | 21.85 | 19.20 |
| | 1931 | 22 | 48 | 5.5 | 50.4 | 46.5 | 92.3 | .404 | 20.36 | 18.78 |

⁶ Includes hookers-off, hangers-off, straighteners, and chain feeders.⁷ Includes carriers, roustabouts, passers to fatters, barrel rollers, etc.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Casing department—Continued

| Sex and occupation | Year | Number of establishments | Number of wage earners | Average days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|---|------|--------------------------|------------------------|-------------------------------|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Females | | | | | | | | | | |
| Casing pullers or runners..... | 1929 | 16 | 66 | 5.5 | 50.0 | 43.9 | 87.8 | \$0.397 | \$19.85 | \$17.43 |
| | 1931 | 13 | 33 | 5.2 | 48.6 | 39.7 | 81.7 | .312 | 15.16 | 12.37 |
| Strippers..... | 1929 | 8 | 38 | 5.6 | 48.8 | 48.0 | 98.4 | .412 | 20.11 | 19.74 |
| | 1931 | 7 | 17 | 5.5 | 49.1 | 42.1 | 85.7 | .303 | 14.88 | 12.75 |
| Turners..... | 1929 | 7 | 38 | 5.4 | 48.2 | 43.6 | 90.5 | .347 | 16.73 | 15.13 |
| | 1931 | 6 | 11 | 5.3 | 48.2 | 43.7 | 90.7 | .311 | 14.99 | 13.58 |
| Blowers, graders, and inspectors.... | 1929 | 42 | 280 | 5.6 | 48.6 | 45.9 | 94.4 | .384 | 18.66 | 17.62 |
| | 1931 | 38 | 347 | 5.5 | 48.7 | 44.9 | 92.2 | .318 | 15.49 | 14.27 |
| Measurers and bunchers..... | 1929 | 18 | 49 | 5.8 | 48.5 | 48.3 | 99.6 | .394 | 19.11 | 19.01 |
| | 1931 | 24 | 67 | 5.7 | 48.4 | 46.3 | 95.7 | .320 | 15.49 | 14.84 |
| Salters and packers..... | 1929 | 9 | 25 | 5.7 | 48.6 | 48.0 | 98.8 | .410 | 19.93 | 19.70 |
| | 1931 | 9 | 14 | 5.1 | 47.7 | 45.0 | 94.3 | .299 | 14.26 | 13.45 |
| Trimmers of casings..... | 1929 | 18 | 72 | 5.7 | 48.4 | 46.6 | 96.3 | .419 | 20.28 | 19.54 |
| | 1931 | 13 | 53 | 5.2 | 48.6 | 43.0 | 88.5 | .296 | 14.39 | 12.74 |
| Blowers and tiers of bladders and weasands..... | 1929 | 7 | 24 | 5.8 | 48.0 | 47.6 | 99.2 | .412 | 19.78 | 19.60 |
| | 1931 | 4 | 4 | 6.0 | 49.5 | 49.5 | 100.0 | .332 | 16.43 | 16.43 |
| General workers ⁸ | 1929 | 12 | 48 | 5.7 | 48.3 | 45.6 | 94.4 | .411 | 19.85 | 18.70 |
| | 1931 | 12 | 38 | 5.1 | 48.7 | 40.8 | 83.8 | .276 | 13.44 | 11.25 |
| Cleaners and washers of bladders, weasands, and chitterlings..... | 1929 | 20 | 185 | 5.5 | 48.9 | 44.0 | 90.0 | .357 | 17.46 | 15.70 |
| | 1931 | 15 | 89 | 5.3 | 48.7 | 37.8 | 77.6 | .285 | 13.88 | 10.78 |

Sausage department

| | | | | | | | | | | |
|--|------|----|-----|-----|------|------|-------|---------|---------|---------|
| <i>Males</i> | | | | | | | | | | |
| Truckers and forkers..... | 1929 | 40 | 195 | 5.7 | 49.2 | 50.2 | 102.0 | \$0.452 | \$22.24 | \$22.72 |
| | 1931 | 37 | 140 | 5.6 | 49.6 | 46.1 | 92.9 | .416 | 20.63 | 19.19 |
| Machine tenders ⁹ | 1929 | 79 | 449 | 5.8 | 50.0 | 52.9 | 105.8 | .531 | 26.55 | 28.05 |
| | 1931 | 78 | 382 | 5.6 | 49.4 | 47.8 | 96.8 | .476 | 23.51 | 22.77 |
| Casing workers ¹⁰ | 1929 | 42 | 98 | 5.6 | 49.6 | 52.1 | 105.0 | .475 | 23.56 | 24.72 |
| | 1931 | 37 | 103 | 5.6 | 49.2 | 45.3 | 92.1 | .421 | 20.71 | 19.08 |
| Stuffers..... | 1929 | 81 | 447 | 5.8 | 49.8 | 52.0 | 104.4 | .578 | 28.78 | 30.03 |
| | 1931 | 78 | 391 | 5.6 | 49.6 | 46.1 | 92.9 | .522 | 25.89 | 24.02 |
| Linkers, twisters, tiers, and hangers..... | 1929 | 24 | 116 | 5.7 | 48.8 | 48.7 | 99.8 | .500 | 24.40 | 24.38 |
| | 1931 | 22 | 70 | 5.6 | 49.1 | 45.7 | 93.1 | .447 | 21.95 | 20.44 |
| Ropers (wrappers and tiers)..... | 1929 | 3 | 6 | 6.0 | 51.3 | 56.8 | 110.7 | .602 | 30.88 | 34.16 |
| | 1931 | 5 | 9 | 6.0 | 50.0 | 47.6 | 95.2 | .472 | 23.60 | 22.44 |
| Laborers ¹¹ | 1929 | 75 | 977 | 5.7 | 49.2 | 51.3 | 104.3 | .456 | 22.44 | 23.42 |
| | 1931 | 77 | 703 | 5.5 | 49.7 | 47.0 | 94.6 | .400 | 19.88 | 18.77 |
| Cooks..... | 1929 | 69 | 192 | 5.9 | 49.6 | 55.5 | 111.9 | .515 | 25.54 | 28.59 |
| | 1931 | 71 | 204 | 5.7 | 49.8 | 51.1 | 102.6 | .468 | 23.31 | 23.91 |
| Smokers..... | 1929 | 72 | 158 | 5.9 | 50.1 | 57.5 | 114.8 | .540 | 27.05 | 31.02 |
| | 1931 | 72 | 160 | 5.7 | 52.2 | 52.5 | 100.6 | .493 | 25.73 | 25.89 |
| Inspectors, packers, scalers, shippers, nailers, and box makers..... | 1929 | 66 | 405 | 5.9 | 49.0 | 51.9 | 105.9 | .485 | 23.77 | 25.16 |
| | 1931 | 58 | 313 | 5.7 | 49.3 | 47.9 | 97.2 | .441 | 21.74 | 21.11 |
| Utility men, assistant foremen, straw bosses, sub-foremen, handy men, small-order men, and all-around men..... | 1929 | 67 | 219 | 5.9 | 50.2 | 52.9 | 105.4 | .603 | 30.27 | 31.85 |
| | 1931 | 63 | 181 | 5.9 | 49.9 | 50.5 | 101.2 | .542 | 27.05 | 27.39 |
| <i>Females</i> | | | | | | | | | | |
| Machine tenders ⁹ | 1929 | 29 | 42 | 5.7 | 48.6 | 47.8 | 98.4 | .354 | 17.20 | 16.91 |
| | 1931 | 24 | 29 | 5.5 | 47.9 | 44.3 | 92.5 | .306 | 14.66 | 13.58 |
| Casing workers ¹⁰ | 1929 | 63 | 511 | 5.6 | 48.7 | 45.5 | 93.4 | .372 | 18.12 | 16.92 |
| | 1931 | 64 | 483 | 5.4 | 49.1 | 42.3 | 86.2 | .320 | 15.17 | 13.53 |

⁸ Includes fatters, slimers, and laborers.⁹ Includes cutters, choppers, grinders, mixers, curers, feeders, spicers, and rockers.¹⁰ Includes washers, turners, re-turners, measurers, cutters, tiers, and fatters.¹¹ Includes roustabouts, ham-cylinder washers, cleaners-up, ham pressers, hangers, cooks' helpers, smokers' helpers, truckers of cages or bikes, etc.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Sausage department—Continued

| Sex and occupation | Year | Number of establishments | Number of wage earners | Average days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|--|------|--------------------------|------------------------|-------------------------------|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Females—Continued | | | | | | | | | | |
| Stuffers..... | 1929 | 20 | 96 | 5.7 | 48.7 | 45.5 | 93.4 | \$0.378 | \$18.41 | \$17.24 |
| | 1931 | 17 | 50 | 5.4 | 50.7 | 41.0 | 80.9 | .361 | 18.30 | 14.81 |
| Linkers, twisters, tiers, and hangers..... | 1929 | 81 | 1,170 | 5.6 | 49.0 | 46.6 | 95.1 | .377 | 18.47 | 17.56 |
| | 1931 | 79 | 1,100 | 5.4 | 49.0 | 42.8 | 87.3 | .327 | 16.02 | 14.00 |
| Ropers (wrappers and tiers)..... | 1929 | 12 | 129 | 5.6 | 48.6 | 46.2 | 95.1 | .383 | 18.61 | 17.73 |
| | 1931 | 15 | 118 | 5.5 | 49.5 | 41.8 | 84.4 | .343 | 16.98 | 14.34 |
| Cooks..... | 1929 | 5 | 6 | 5.3 | 49.0 | 45.1 | 92.0 | .345 | 16.91 | 15.57 |
| | 1931 | 4 | 6 | 5.0 | 50.1 | 42.0 | 83.8 | .281 | 14.08 | 11.80 |
| Packers ¹² | 1929 | 62 | 642 | 5.6 | 48.8 | 45.6 | 93.4 | .342 | 16.69 | 15.60 |
| | 1931 | 62 | 547 | 5.6 | 48.8 | 45.8 | 93.9 | .299 | 14.59 | 13.71 |
| General workers ¹³ | 1929 | 43 | 248 | 5.5 | 48.3 | 44.9 | 93.0 | .351 | 16.95 | 15.78 |
| | 1931 | 30 | 79 | 5.3 | 48.4 | 44.1 | 91.1 | .296 | 14.33 | 13.03 |

Canning department

| | | | | | | | | | | |
|---|------|----|-------|-----|------|------|-------|---------|---------|---------|
| <i>Males</i> | | | | | | | | | | |
| Cooks..... | 1929 | 15 | 62 | 5.9 | 48.4 | 57.4 | 118.6 | \$0.512 | \$24.78 | \$29.40 |
| | 1931 | 13 | 26 | 5.2 | 47.8 | 44.3 | 92.7 | .461 | 22.04 | 20.41 |
| Steam tenders, process men, and retort men..... | 1929 | 7 | 15 | 5.7 | 48.4 | 52.0 | 107.4 | .479 | 23.18 | 24.95 |
| | 1931 | 13 | 26 | 5.5 | 48.7 | 50.1 | 102.9 | .455 | 22.16 | 22.80 |
| Passers and pilers, cans..... | 1929 | 7 | 30 | 5.6 | 48.4 | 47.3 | 97.7 | .471 | 22.80 | 22.27 |
| | 1931 | 6 | 19 | 5.5 | 48.6 | 48.6 | 100.0 | .425 | 20.64 | 20.64 |
| Trimmers, meat (by hand)..... | 1929 | 6 | 16 | 5.4 | 49.7 | 56.4 | 113.5 | .500 | 24.85 | 28.20 |
| | 1931 | 4 | 18 | 3.8 | 49.0 | 27.7 | 56.5 | .452 | 22.15 | 12.53 |
| Machine tenders (preparing and stuffing meat into cans)..... | 1929 | 52 | 200 | 5.8 | 49.0 | 51.0 | 104.1 | .502 | 24.60 | 25.61 |
| | 1931 | 55 | 169 | 5.7 | 49.6 | 49.7 | 100.2 | .430 | 21.33 | 21.37 |
| Stuffers (meat into cans by hand)..... | 1929 | 8 | 14 | 5.9 | 51.0 | 51.3 | 100.6 | .450 | 22.95 | 23.11 |
| | 1931 | 13 | 37 | 5.5 | 49.9 | 45.7 | 91.6 | .449 | 22.41 | 20.51 |
| Packers and nailers..... | 1929 | 23 | 132 | 5.8 | 48.8 | 48.6 | 99.6 | .461 | 22.50 | 22.42 |
| | 1931 | 24 | 141 | 5.6 | 49.4 | 46.4 | 93.9 | .426 | 21.04 | 19.75 |
| Cappers..... | 1929 | 16 | 68 | 5.6 | 49.0 | 50.6 | 103.3 | .484 | 23.72 | 24.50 |
| | 1931 | 17 | 84 | 5.1 | 49.1 | 41.3 | 84.1 | .444 | 21.80 | 18.35 |
| Machine tenders, washing and painting..... | 1929 | 2 | 2 | 5.0 | 46.5 | 42.3 | 91.0 | .456 | 21.20 | 19.28 |
| | 1931 | 3 | 7 | 5.4 | 46.3 | 46.6 | 100.7 | .423 | 19.58 | 19.72 |
| General workers..... | 1929 | 19 | 130 | 5.8 | 46.8 | 51.2 | 109.4 | .522 | 24.43 | 26.74 |
| | 1931 | 22 | 74 | 5.8 | 48.8 | 51.0 | 104.5 | .502 | 24.50 | 25.58 |
| Inspectors..... | 1929 | 9 | 42 | 6.0 | 49.1 | 53.7 | 109.4 | .500 | 24.55 | 26.86 |
| | 1931 | 9 | 44 | 5.4 | 47.9 | 47.4 | 99.0 | .477 | 22.85 | 22.61 |
| Truckers and forklifts..... | 1929 | 16 | 291 | 5.2 | 48.2 | 45.5 | 94.4 | .465 | 22.41 | 21.14 |
| | 1931 | 19 | 128 | 5.4 | 47.6 | 46.0 | 96.6 | .410 | 19.52 | 18.89 |
| Laborers ¹⁴ | 1929 | 27 | 376 | 5.6 | 48.1 | 49.6 | 103.1 | .453 | 21.79 | 22.48 |
| | 1931 | 27 | 166 | 5.4 | 49.1 | 48.5 | 98.8 | .398 | 19.54 | 19.29 |
| <i>Females</i> | | | | | | | | | | |
| Passers and pilers, cans..... | 1929 | 3 | 30 | 5.4 | 48.4 | 44.0 | 90.9 | .363 | 17.57 | 16.00 |
| | 1931 | 6 | 32 | 4.4 | 46.9 | 33.5 | 71.4 | .329 | 15.43 | 11.01 |
| Trimmers, meat (by hand)..... | 1929 | 5 | 41 | 5.6 | 47.2 | 45.2 | 95.8 | .392 | 18.50 | 17.71 |
| | 1931 | 8 | 126 | 5.3 | 49.4 | 41.6 | 84.2 | .306 | 15.12 | 12.74 |
| Machine tenders (preparing and stuffing meat into cans)..... | 1929 | 17 | 63 | 5.7 | 49.0 | 46.2 | 94.3 | .360 | 17.64 | 16.63 |
| | 1931 | 21 | 75 | 5.0 | 47.5 | 39.8 | 83.8 | .325 | 15.44 | 12.92 |
| Stuffers (meat into cans by hand)..... | 1929 | 7 | 53 | 5.8 | 47.3 | 44.8 | 94.7 | .375 | 17.74 | 16.80 |
| | 1931 | 8 | 101 | 5.0 | 49.2 | 39.4 | 80.1 | .316 | 15.55 | 12.45 |
| Packers (sliced bacon and chipped dried beef in cans, glass jars, or cartons, by hand)..... | 1929 | 60 | 1,341 | 5.6 | 48.8 | 44.8 | 91.8 | .354 | 17.28 | 15.87 |
| | 1931 | 66 | 1,286 | 5.5 | 48.9 | 43.1 | 88.1 | .325 | 15.89 | 13.98 |

¹² Includes wrappers, inspectors, taggers, tiers, and packers' helpers.¹³ Includes labelers, laborers, box makers, sorters, and utility women.¹⁴ Includes roustabouts, clean-up men, cooler men, cook's helpers, shovers, and washing machine helpers.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Canning department—Continued

| Sex and occupation | Year | Num-ber of estab-lish-ments | Num-ber of wage earn-ers | Average days worked in 1 week | Aver-age full-time hours per week | Hours actu-ally worked in 1 week | | Aver-age earnings per hour | Aver-age full-time earnings per week | Aver-age actual earnings in 1 week |
|-------------------------------------|------|-----------------------------|--------------------------|-------------------------------|-----------------------------------|----------------------------------|-----------------------|----------------------------|--------------------------------------|------------------------------------|
| | | | | | | Aver-age num-ber | Per cent of full time | | | |
| Females—Continued | | | | | | | | | | |
| Weighers (filled cans) ----- | 1929 | 29 | 135 | 5.8 | 48.9 | 46.4 | 94.9 | \$0.358 | \$17.51 | \$16.60 |
| | 1931 | 42 | 238 | 5.6 | 49.2 | 43.3 | 88.0 | .314 | 15.45 | 13.58 |
| Wipers (filled cans) ----- | 1929 | 4 | 4 | 5.3 | 49.5 | 39.6 | 80.0 | .349 | 17.28 | 13.81 |
| | 1931 | 4 | 11 | 4.8 | 49.1 | 35.1 | 71.5 | .362 | 17.77 | 12.71 |
| Cappers ----- | 1929 | 7 | 28 | 5.7 | 48.0 | 44.3 | 92.3 | .325 | 15.60 | 14.42 |
| | 1931 | 5 | 8 | 5.8 | 49.5 | 45.6 | 92.1 | .339 | 16.78 | 15.45 |
| Labelers and wrappers ----- | 1929 | 25 | 163 | 5.6 | 48.0 | 45.1 | 94.0 | .381 | 18.29 | 17.21 |
| | 1931 | 30 | 162 | 5.4 | 48.5 | 41.3 | 85.2 | .309 | 14.99 | 12.76 |
| General workers ¹⁵ ----- | 1929 | 27 | 308 | 5.6 | 47.1 | 45.1 | 95.8 | .374 | 17.62 | 16.84 |
| | 1931 | 29 | 102 | 5.5 | 48.9 | 43.8 | 89.6 | .342 | 16.72 | 14.98 |

¹⁵ Includes cooks, inspectors, and laborers.

Time Worked and Earnings, 1929 and 1931, by Sex and State

TABLE 4 shows for the wage earners of each sex and State, or group of two States, and of both sexes combined in each State or group of two States, average days, hours, and earnings, and the per cent of full time worked in one week in 1929 and 1931. Averages are shown for groups of two States to avoid presenting figures for one establishment only, thus possibly revealing its identity.

Average hours actually worked by males in one week in 1931 were more in California and Pennsylvania, and less in all other States and groups of States than in 1929. Such averages ranged by States and groups of States from 46.0 to 55.9 in 1929 and from 39.5 to 53.7 in 1931, and for all States combined averaged 48.5 in 1929 and 45.9 in 1931. Average hours actually worked by females in one week in 1931 were more in California, Michigan, Pennsylvania, and Wisconsin and the group of Florida and Georgia, and less in all other States and groups of States than in 1929. Averages ranged by States from 41.3 to 52.9 in 1929 and from 36.7 to 49.9 per week in 1931, and for all States combined averaged 44.9 hours per week in 1929 and 42.4 in 1931.

Average earnings per hour of males ranged by States and groups of States from 32.5 to 58.8 cents in 1929 and from 28.6 to 52.5 cents in 1931, and for all States combined averaged 52.5 cents in 1929 and 47.0 cents in 1931. Average earnings per hour of females ranged by States from 21.4 to 40.5 cents in 1929 and from 16.1 to 37.2 cents in 1931, and for all States combined averaged 36.9 cents in 1929 and 32.1 cents in 1931.

TABLE 4.—AVERAGE HOURS, AND EARNINGS, IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND STATE

| Sex and State | Year | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|--|------|--------------------------|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Males | | | | | | | | | | |
| California..... | 1929 | 4 | 947 | 5.7 | 47.9 | 47.0 | 98.1 | \$0.553 | \$26.49 | \$25.98 |
| | 1931 | 4 | 930 | 5.8 | 47.8 | 50.3 | 105.2 | .498 | 23.80 | 25.06 |
| Colorado..... | 1929 | 2 | 401 | 5.8 | 51.5 | 52.1 | 101.2 | .537 | 27.66 | 28.02 |
| | 1931 | 2 | 504 | 5.9 | 48.3 | 49.6 | 102.7 | .525 | 25.36 | 26.05 |
| Connecticut and Massachusetts ¹ | 1929 | 4 | 1,275 | 5.8 | 52.5 | 51.6 | 98.3 | .535 | 28.09 | 27.62 |
| | 1931 | 4 | 908 | 5.8 | 54.0 | 47.2 | 87.4 | .496 | 26.78 | 23.44 |
| Florida and Georgia ¹ | 1929 | 3 | 232 | 5.7 | 55.4 | 48.3 | 87.2 | .325 | 18.01 | 15.72 |
| | 1931 | 3 | 190 | 4.9 | 55.5 | 43.9 | 79.1 | .286 | 15.87 | 12.56 |
| Illinois..... | 1929 | 14 | 14,264 | 5.7 | 48.0 | 49.3 | 102.7 | .553 | 26.54 | 27.27 |
| | 1931 | 14 | 11,252 | 5.7 | 48.8 | 47.5 | 97.3 | .488 | 23.81 | 23.19 |
| Indiana..... | 1929 | 2 | 1,733 | 5.8 | 48.0 | 46.3 | 96.5 | .459 | 22.03 | 21.24 |
| | 1931 | 2 | 1,513 | 5.6 | 47.8 | 39.5 | 82.6 | .392 | 18.74 | 15.50 |
| Iowa..... | 1929 | 7 | 4,879 | 5.8 | 52.0 | 47.3 | 91.0 | .463 | 24.08 | 21.94 |
| | 1931 | 7 | 5,279 | 5.6 | 49.1 | 45.7 | 93.1 | .438 | 21.51 | 20.01 |
| Kansas..... | 1929 | 8 | 6,309 | 5.7 | 48.0 | 47.3 | 98.5 | .518 | 24.86 | 24.54 |
| | 1931 | 8 | 4,859 | 5.4 | 48.1 | 44.3 | 92.1 | .448 | 21.55 | 19.82 |
| Maryland..... | 1929 | 3 | 668 | 5.8 | 54.6 | 55.9 | 102.4 | .478 | 26.10 | 26.72 |
| | 1931 | 3 | 504 | 5.8 | 53.8 | 52.9 | 98.3 | .489 | 26.31 | 25.90 |
| Michigan..... | 1929 | 3 | 1,012 | 5.7 | 60.0 | 55.1 | 91.8 | .537 | 32.22 | 29.61 |
| | 1931 | 2 | 583 | 5.5 | 58.0 | 47.6 | 82.1 | .465 | 26.97 | 22.15 |
| Minnesota and South Dakota ¹ | 1929 | 5 | 5,342 | 5.7 | 48.0 | 46.9 | 97.7 | .517 | 24.82 | 24.26 |
| | 1931 | 5 | 5,493 | 5.6 | 49.8 | 46.2 | 92.8 | .475 | 23.66 | 21.98 |
| Missouri..... | 1929 | 4 | 2,643 | 5.8 | 48.1 | 47.7 | 99.2 | .517 | 24.87 | 24.64 |
| | 1931 | 5 | 2,444 | 5.6 | 49.0 | 47.2 | 96.3 | .471 | 23.08 | 22.19 |
| Nebraska..... | 1929 | 4 | 3,723 | 5.6 | 48.0 | 46.0 | 95.8 | .533 | 25.58 | 24.55 |
| | 1931 | 4 | 3,586 | 5.3 | 48.0 | 42.1 | 87.7 | .456 | 21.89 | 19.22 |
| New Jersey and New York ¹ | 1929 | 2 ⁷ | 2,190 | 5.3 | 49.4 | 46.3 | 93.7 | .588 | 29.05 | 27.20 |
| | 1931 | 7 | 2,293 | 5.3 | 52.3 | 43.8 | 83.7 | .519 | 27.14 | 22.72 |
| Ohio and West Virginia ¹ | 1929 | 4 | 1,293 | 5.7 | 53.9 | 50.6 | 93.9 | .509 | 27.44 | 25.75 |
| | 1931 | 4 | 864 | 5.8 | 51.2 | 49.3 | 96.3 | .494 | 25.29 | 24.34 |
| Oklahoma..... | 1929 | 2 | 1,123 | 5.6 | 48.1 | 47.9 | 99.6 | .479 | 23.04 | 22.93 |
| | 1931 | 2 | 740 | 5.1 | 46.2 | 42.0 | 90.9 | .416 | 19.22 | 17.48 |
| Oregon and Washington ¹ | 1929 | 4 | 645 | 5.8 | 49.1 | 49.6 | 101.0 | .583 | 28.63 | 28.94 |
| | 1931 | 4 | 550 | 5.4 | 48.9 | 47.0 | 96.1 | .498 | 24.35 | 23.41 |
| Pennsylvania..... | 1929 | 3 | 742 | 5.8 | 54.1 | 53.2 | 98.3 | .556 | 30.08 | 29.58 |
| | 1931 | 3 | 466 | 5.7 | 52.3 | 53.7 | 102.7 | .473 | 24.74 | 25.36 |
| Texas..... | 1929 | 5 | 2,064 | 5.7 | 49.1 | 48.6 | 99.0 | .481 | 23.62 | 23.39 |
| | 1931 | 5 | 1,400 | 5.2 | 48.1 | 41.9 | 87.1 | .444 | 21.36 | 18.63 |
| Wisconsin..... | 1929 | 2 | 1,311 | 5.8 | 51.6 | 53.7 | 104.1 | .566 | 29.21 | 30.39 |
| | 1931 | 2 | 1,165 | 5.7 | 48.1 | 49.7 | 103.3 | .498 | 23.95 | 24.71 |
| Total..... | 1929 | 90 | 52,796 | 5.7 | 49.3 | 48.5 | 98.4 | .525 | 25.88 | 25.47 |
| | 1931 | 90 | 45,523 | 5.5 | 49.2 | 45.9 | 93.3 | .470 | 23.12 | 21.57 |
| Females | | | | | | | | | | |
| California..... | 1929 | 4 | 171 | 5.7 | 47.8 | 45.1 | 94.4 | .373 | 17.83 | 16.82 |
| | 1931 | 4 | 216 | 5.8 | 47.7 | 46.2 | 96.9 | .372 | 17.74 | 17.16 |
| Colorado..... | 1929 | 2 | 74 | 5.6 | 48.1 | 43.4 | 90.2 | .328 | 15.78 | 14.22 |
| | 1931 | 2 | 105 | 5.5 | 48.0 | 39.9 | 83.1 | .332 | 15.94 | 13.25 |
| Connecticut and Massachusetts ¹ | 1929 | 4 | 267 | 5.4 | 49.2 | 41.3 | 83.9 | .339 | 16.68 | 14.01 |
| | 1931 | 4 | 205 | 5.7 | 49.1 | 40.5 | 82.5 | .319 | 15.66 | 12.93 |
| Florida and Georgia ¹ | 1929 | 2 | 24 | 4.3 | 55.8 | 42.7 | 76.5 | .214 | 11.94 | 9.14 |
| | 1931 | 2 | 23 | 4.8 | 55.9 | 43.4 | 77.6 | .161 | 9.00 | 6.99 |
| Illinois..... | 1929 | 12 | 2,538 | 5.6 | 47.7 | 46.3 | 97.1 | .405 | 19.32 | 18.73 |
| | 1931 | 10 | 2,214 | 5.5 | 48.9 | 43.4 | 88.8 | .359 | 17.50 | 15.60 |
| Indiana..... | 1929 | 2 | 328 | 5.7 | 48.0 | 43.6 | 90.8 | .275 | 13.20 | 12.00 |
| | 1931 | 2 | 312 | 5.6 | 47.9 | 36.7 | 76.6 | .257 | 12.31 | 9.44 |
| Iowa..... | 1929 | 7 | 769 | 5.7 | 52.6 | 45.4 | 86.3 | .319 | 16.78 | 14.51 |
| | 1931 | 7 | 973 | 5.5 | 49.7 | 44.5 | 89.5 | .293 | 14.56 | 13.05 |
| Kansas..... | 1929 | 8 | 1,045 | 5.6 | 48.0 | 44.1 | 91.9 | .395 | 18.96 | 17.40 |
| | 1931 | 8 | 922 | 5.3 | 48.0 | 41.7 | 86.9 | .318 | 15.26 | 13.24 |
| Maryland..... | 1929 | 2 | 141 | 5.8 | 55.0 | 52.9 | 96.2 | .290 | 15.95 | 15.34 |
| | 1931 | 2 | 114 | 5.8 | 47.8 | 49.9 | 104.4 | .286 | 13.67 | 14.30 |
| Michigan..... | 1929 | 3 | 332 | 5.2 | 54.3 | 44.0 | 81.0 | .329 | 17.86 | 14.49 |
| | 1931 | 2 | 189 | 5.5 | 54.0 | 44.7 | 82.8 | .293 | 15.82 | 13.11 |
| Minnesota and South Dakota ¹ | 1929 | 5 | 815 | 5.6 | 48.0 | 44.3 | 92.3 | .365 | 17.52 | 16.18 |
| | 1931 | 5 | 818 | 5.3 | 49.4 | 40.8 | 82.6 | .307 | 15.17 | 12.54 |

¹ Shown together to avoid presenting data for 1 establishment in 1 State.² New York only.

TABLE 4.—AVERAGE HOURS, AND EARNINGS, IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND STATE—Continued

| Sex and State | Year | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
|--|------|--------------------------|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | | | | | | Average number | Per cent of full time | | | |
| Females—Continued | | | | | | | | | | |
| Missouri | 1929 | 4 | 249 | 5.8 | 48.0 | 44.8 | 93.3 | \$0.395 | \$18.96 | \$17.67 |
| | 1931 | 5 | 221 | 5.4 | 49.2 | 42.8 | 87.0 | .331 | 16.29 | 14.18 |
| Nebraska | 1929 | 4 | 563 | 5.5 | 48.0 | 43.5 | 90.6 | .374 | 17.95 | 16.28 |
| | 1931 | 4 | 539 | 5.1 | 48.0 | 39.1 | 81.5 | .314 | 15.07 | 12.28 |
| New Jersey and New York ¹ | 1929 | ² 4 | ² 300 | ² 5.3 | ² 47.7 | ² 41.7 | ² 87.4 | ² .375 | ² 17.89 | ² 15.63 |
| | 1931 | 5 | 324 | 5.2 | 50.3 | 40.3 | 80.1 | .309 | 15.54 | 12.46 |
| Ohio and West Virginia ¹ | 1929 | 4 | 230 | 5.6 | 49.6 | 46.0 | 92.7 | .338 | 16.76 | 15.58 |
| | 1931 | 4 | 160 | 5.7 | 49.1 | 43.3 | 88.2 | .310 | 15.22 | 13.44 |
| Oklahoma | 1929 | 2 | 154 | 5.4 | 48.0 | 44.3 | 92.3 | .302 | 14.50 | 13.38 |
| | 1931 | 2 | 125 | 5.0 | 46.3 | 40.1 | 86.6 | .258 | 11.95 | 10.36 |
| Oregon and Washington ¹ | 1929 | 4 | 85 | 5.8 | 47.9 | 43.2 | 90.2 | .371 | 17.77 | 16.04 |
| | 1931 | 4 | 63 | 5.0 | 46.6 | 39.8 | 85.4 | .335 | 15.61 | 13.34 |
| Pennsylvania | 1929 | 3 | 93 | 5.3 | 51.8 | 42.1 | 81.3 | .386 | 19.99 | 16.24 |
| | 1931 | 3 | 107 | 5.7 | 50.0 | 46.5 | 93.0 | .292 | 14.60 | 13.56 |
| Texas | 1929 | 5 | 366 | 5.4 | 48.4 | 44.5 | 91.9 | .322 | 15.58 | 14.32 |
| | 1931 | 5 | 214 | 5.1 | 48.3 | 40.3 | 83.4 | .277 | 13.38 | 11.18 |
| Wisconsin | 1929 | 2 | 259 | 5.8 | 49.4 | 44.8 | 90.7 | .404 | 19.96 | 18.10 |
| | 1931 | 2 | 188 | 5.7 | 48.0 | 45.4 | 94.6 | .325 | 15.60 | 14.76 |
| Total | 1929 | 83 | 8,803 | 5.6 | 48.9 | 44.9 | 91.8 | .369 | 18.04 | 16.54 |
| | 1931 | 82 | 8,032 | 5.4 | 48.9 | 42.4 | 86.7 | .321 | 15.70 | 13.61 |
| Males and females | | | | | | | | | | |
| California | 1929 | 4 | 1,118 | 5.7 | 47.9 | 46.7 | 97.5 | .527 | 25.24 | 24.58 |
| | 1931 | 4 | 1,146 | 5.8 | 47.7 | 49.6 | 104.0 | .476 | 22.71 | 23.57 |
| Colorado | 1929 | 2 | 475 | 5.7 | 50.9 | 50.8 | 99.8 | .509 | 25.91 | 25.87 |
| | 1931 | 2 | 609 | 5.8 | 48.2 | 48.0 | 99.6 | .497 | 23.96 | 23.84 |
| Connecticut and Massachusetts ¹ | 1929 | 4 | 1,542 | 5.7 | 52.0 | 49.8 | 95.8 | .507 | 26.36 | 25.27 |
| | 1931 | 4 | 1,113 | 5.8 | 53.1 | 46.0 | 86.6 | .467 | 24.80 | 21.50 |
| Florida and Georgia ¹ | 1929 | 3 | 256 | 5.6 | 55.5 | 47.8 | 86.1 | .316 | 17.54 | 15.10 |
| | 1931 | 3 | 213 | 4.9 | 55.5 | 43.8 | 78.9 | .273 | 15.15 | 11.96 |
| Illinois | 1929 | 14 | 16,802 | 5.6 | 48.0 | 48.9 | 101.9 | .532 | 25.54 | 25.98 |
| | 1931 | 14 | 13,466 | 5.7 | 48.8 | 46.8 | 95.9 | .468 | 22.84 | 21.94 |
| Indiana | 1929 | 2 | 2,061 | 5.8 | 48.0 | 45.9 | 95.6 | .431 | 20.69 | 19.77 |
| | 1931 | 2 | 1,825 | 5.6 | 47.8 | 39.0 | 81.6 | .370 | 17.69 | 14.46 |
| Iowa | 1929 | 7 | 5,648 | 5.8 | 52.1 | 47.1 | 90.4 | .445 | 23.18 | 20.92 |
| | 1931 | 7 | 6,252 | 5.6 | 49.2 | 45.5 | 92.5 | .416 | 20.47 | 18.93 |
| Kansas | 1929 | 8 | 7,354 | 5.7 | 48.0 | 46.9 | 97.7 | .502 | 24.10 | 23.52 |
| | 1931 | 8 | 5,781 | 5.4 | 48.1 | 43.9 | 91.3 | .428 | 20.59 | 18.77 |
| Maryland | 1929 | 3 | 809 | 5.8 | 54.7 | 55.3 | 101.1 | .447 | 24.45 | 24.74 |
| | 1931 | 3 | 618 | 5.8 | 52.7 | 52.4 | 99.4 | .454 | 23.93 | 23.76 |
| Michigan | 1929 | 3 | 1,344 | 5.6 | 58.6 | 52.4 | 89.4 | .494 | 28.95 | 25.87 |
| | 1931 | 2 | 772 | 5.5 | 57.0 | 46.9 | 82.3 | .425 | 24.23 | 19.94 |
| Minnesota and South Dakota ¹ | 1929 | 5 | 6,157 | 5.6 | 48.0 | 46.6 | 97.1 | .498 | 23.90 | 23.19 |
| | 1931 | 5 | 6,311 | 5.5 | 49.7 | 45.5 | 91.5 | .456 | 22.66 | 20.75 |
| Missouri | 1929 | 4 | 2,892 | 5.8 | 48.1 | 47.4 | 98.5 | .507 | 24.39 | 24.03 |
| | 1931 | 5 | 2,665 | 5.6 | 49.0 | 46.8 | 95.5 | .460 | 22.54 | 21.53 |
| Nebraska | 1929 | 4 | 4,286 | 5.6 | 48.0 | 45.7 | 95.2 | .513 | 24.62 | 23.47 |
| | 1931 | 4 | 4,125 | 5.2 | 48.0 | 41.7 | 86.9 | .439 | 21.07 | 18.32 |
| New Jersey and New York ¹ | 1929 | ² 7 | ² 2,490 | ² 5.3 | ² 49.2 | ² 45.7 | ² 92.9 | ² .564 | ² 27.75 | ² 25.81 |
| | 1931 | 7 | 2,617 | 5.3 | 52.1 | 43.4 | 83.3 | .494 | 25.74 | 21.45 |
| Ohio and West Virginia ¹ | 1929 | 4 | 1,523 | 5.7 | 53.2 | 49.9 | 93.8 | .485 | 25.80 | 24.22 |
| | 1931 | 4 | 1,024 | 5.8 | 50.9 | 48.3 | 94.9 | .468 | 23.82 | 22.63 |
| Oklahoma | 1929 | 2 | 1,277 | 5.5 | 48.1 | 47.5 | 98.8 | .450 | 22.08 | 21.78 |
| | 1931 | 2 | 865 | 5.1 | 46.2 | 41.7 | 90.3 | .394 | 18.20 | 16.45 |
| Oregon and Washington ¹ | 1929 | 4 | 730 | 5.8 | 49.0 | 48.9 | 99.8 | .561 | 27.49 | 27.43 |
| | 1931 | 4 | 613 | 5.4 | 48.6 | 46.3 | 95.3 | .484 | 23.52 | 22.38 |
| Pennsylvania | 1929 | 3 | 835 | 5.7 | 53.9 | 52.0 | 96.5 | .541 | 20.16 | 28.09 |
| | 1931 | 3 | 573 | 5.7 | 51.8 | 52.3 | 101.0 | .443 | 22.95 | 23.16 |
| Texas | 1929 | 5 | 2,430 | 5.6 | 49.0 | 48.0 | 98.0 | .459 | 22.49 | 22.02 |
| | 1931 | 5 | 1,614 | 5.2 | 48.1 | 41.7 | 86.7 | .423 | 20.35 | 17.64 |
| Wisconsin | 1929 | 2 | 1,570 | 5.8 | 51.2 | 52.2 | 102.0 | .543 | 27.80 | 28.36 |
| | 1931 | 2 | 1,353 | 5.7 | 48.1 | 49.1 | 102.1 | .475 | 22.85 | 23.33 |
| Total | 1929 | 90 | 61,599 | 5.7 | 49.2 | 48.0 | 97.6 | .504 | 24.80 | 24.18 |
| | 1931 | 90 | 53,555 | 5.5 | 49.2 | 45.4 | 92.3 | .449 | 22.09 | 20.38 |

¹ Shown together to avoid presenting data for 1 establishment in 1 State.² New York only.

Time Worked and Earnings in Selected Occupations and Departments, by Districts

TABLE 5 shows average days, hours, and earnings, and the per cent of full time worked in one week in 1931, by department, district, and sex for wage earners in four representative occupations in the cattle-killing, hog-killing, and casing departments, for three in the sausage department, and for two in the canning department. The table is abridged to conserve space. Similar figures will be published later in a bulletin of the bureau for each of the occupations in each of the 13 departments covered in the study of the industry. The districts are eight in number, as follows:

District 1 includes 11 plants in Chicago, Ill.

District 2 includes 17 plants in East St. Louis, Ill.; Kansas City, Kans.; St. Joseph and St. Louis, Mo.; and Omaha, Nebr.

District 3 includes 17 plants in Iowa, Kansas, Minnesota, South Dakota, and Wisconsin.

District 4 includes 7 plants in Oklahoma and Texas.

District 5 includes 13 plants in Indiana, Michigan, western New York, Ohio, western Pennsylvania, and West Virginia.

District 6 includes 9 plants in Connecticut, Massachusetts, New Jersey, eastern New York, and eastern Pennsylvania.

District 7 includes 6 plants in Florida, Georgia, and Maryland.

District 8 includes 10 plants in California, Colorado, Oregon, and Washington.

Reading part of the figures for leg breakers, male, in the cattle-killing department, in explanation of the table, it is seen that—

Days worked in one week for all districts combined averaged 5.1 and the average of 3.9 for district 6 was less and of 5.8 for district 1 was more than the average for any of the other 6 districts.

Hours actually worked in one week for all districts combined averaged 40.7 and that the average of 25.1 for district 6 was less and of 50.4 for district 1 was more than the average for any other district.

The per cent of full time actually worked in one week was 83.6 for all districts combined and the 51 per cent for district 6 was less and of 103.5 for district 1 was more than the per cent of full time worked in any other district. It is seen that in districts 2, 4, 5, and 6, there was considerable part-time work. On the other hand there was some overtime in district 1.

Earnings per hour for all districts combined were 51.2 cents and the average of 44.6 cents for district 4 was less and of 92.1 cents for district 6 was more than the average for any other district.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT

Cattle-killing department

| District | Leg breakers, male | | | | | | | | |
|------------|-----------------------------|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 24 | 5.8 | 48.7 | 50.4 | 103.5 | \$0.508 | \$24.74 | \$25.61 |
| No. 2..... | 14 | 38 | 5.0 | 48.0 | 39.0 | 81.3 | .478 | 22.94 | 18.62 |
| No. 3..... | 14 | 30 | 5.7 | 49.1 | 45.1 | 91.9 | .493 | 24.21 | 22.25 |
| No. 4..... | 6 | 12 | 4.7 | 47.3 | 37.4 | 79.1 | .446 | 21.10 | 16.68 |
| No. 5..... | 9 | 16 | 4.1 | 50.3 | 29.2 | 58.1 | .503 | 25.30 | 14.67 |
| No. 6..... | 3 | 10 | 3.9 | 49.2 | 25.1 | 51.0 | .921 | 45.31 | 23.07 |
| No. 7..... | 3 | 4 | 5.0 | 52.0 | 49.2 | 94.6 | .502 | 26.10 | 24.69 |
| No. 8..... | 7 | 9 | 5.6 | 48.0 | 46.3 | 96.5 | .544 | 26.11 | 25.21 |
| Total..... | 63 | 143 | 5.1 | 48.7 | 40.7 | 83.6 | .512 | 24.93 | 20.85 |
| District | Floormen or siders, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 46 | 5.4 | 48.7 | 45.9 | 94.3 | \$0.852 | \$41.49 | \$39.13 |
| No. 2..... | 15 | 72 | 5.1 | 48.2 | 39.5 | 82.0 | .761 | 36.68 | 30.04 |
| No. 3..... | 16 | 44 | 5.4 | 49.0 | 42.1 | 85.9 | .793 | 38.86 | 33.36 |
| No. 4..... | 6 | 18 | 5.0 | 47.7 | 39.9 | 83.6 | .752 | 35.87 | 30.02 |
| No. 5..... | 10 | 21 | 4.9 | 51.2 | 35.2 | 68.8 | .741 | 37.94 | 26.05 |
| No. 6..... | 3 | 13 | 4.2 | 49.4 | 27.8 | 56.3 | 1.238 | 61.16 | 34.48 |
| No. 7..... | 4 | 6 | 5.8 | 53.7 | 53.0 | 98.7 | .674 | 36.19 | 35.69 |
| No. 8..... | 9 | 14 | 5.9 | 48.0 | 50.1 | 104.4 | .765 | 36.72 | 38.32 |
| Total..... | 70 | 234 | 5.2 | 48.9 | 41.2 | 84.3 | .800 | 39.12 | 32.98 |
| District | Splitters, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 6 | 18 | 5.7 | 49.3 | 48.8 | 99.0 | \$0.825 | \$40.67 | \$40.24 |
| No. 2..... | 15 | 41 | 5.1 | 48.1 | 40.5 | 84.2 | .764 | 36.75 | 30.95 |
| No. 3..... | 16 | 25 | 5.3 | 49.0 | 42.7 | 87.1 | .746 | 36.55 | 31.90 |
| No. 4..... | 7 | 11 | 5.1 | 47.8 | 38.9 | 81.4 | .699 | 33.41 | 27.21 |
| No. 5..... | 7 | 8 | 5.0 | 50.5 | 35.5 | 70.3 | .815 | 41.16 | 28.96 |
| No. 6..... | 3 | 6 | 4.0 | 51.0 | 27.2 | 53.3 | 1.345 | 68.60 | 36.54 |
| No. 7..... | 4 | 5 | 5.6 | 53.8 | 49.1 | 91.3 | .515 | 27.71 | 25.26 |
| No. 8..... | 8 | 9 | 6.0 | 47.7 | 50.2 | 105.2 | .826 | 39.40 | 41.49 |
| Total..... | 66 | 123 | 5.3 | 48.9 | 42.1 | 86.1 | .780 | 38.14 | 32.85 |
| District | Laborers, male ¹ | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 105 | 5.6 | 49.5 | 49.1 | 99.2 | \$0.436 | \$21.58 | \$21.39 |
| No. 2..... | 14 | 186 | 5.0 | 48.0 | 40.6 | 84.6 | .402 | 19.30 | 16.29 |
| No. 3..... | 14 | 130 | 5.5 | 49.0 | 43.4 | 88.6 | .401 | 19.65 | 17.43 |
| No. 4..... | 6 | 49 | 4.9 | 47.4 | 41.2 | 86.9 | .358 | 16.97 | 14.74 |
| No. 5..... | 8 | 49 | 4.7 | 51.3 | 30.2 | 58.9 | .375 | 19.24 | 11.33 |
| No. 6..... | 3 | 30 | 4.4 | 49.2 | 31.0 | 63.0 | .608 | 29.91 | 18.82 |
| No. 7..... | 6 | 20 | 5.4 | 55.0 | 48.6 | 88.4 | .284 | 15.62 | 13.83 |
| No. 8..... | 9 | 34 | 5.6 | 47.7 | 51.5 | 108.0 | .419 | 19.99 | 21.56 |
| Total..... | 67 | 603 | 5.2 | 49.0 | 42.3 | 86.3 | .408 | 19.99 | 17.24 |

¹ Includes floor cleaners, mark heads, spread cattle, tie guts, laundrymen, taggers, etc.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT—Continued

Hog-killing department

| District | Laborers, male ¹ | | | | | | | | |
|------------|--|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 85 | 5.6 | 50.7 | 50.8 | 100.2 | \$0.418 | \$21.19 | \$21.23 |
| No. 2..... | 17 | 156 | 5.4 | 48.3 | 42.9 | 88.8 | .416 | 20.09 | 17.84 |
| No. 3..... | 17 | 305 | 5.4 | 48.6 | 43.6 | 89.7 | .388 | 18.86 | 16.93 |
| No. 4..... | 2 | 3 | 6.0 | 46.0 | 48.7 | 105.9 | .355 | 16.33 | 17.29 |
| No. 5..... | 12 | 91 | 5.6 | 51.4 | 41.3 | 80.4 | .390 | 20.05 | 16.09 |
| No. 6..... | 6 | 40 | 5.8 | 55.7 | 53.7 | 96.4 | .409 | 22.78 | 21.96 |
| No. 7..... | 2 | 8 | 6.1 | 54.3 | 49.0 | 90.2 | .337 | 18.30 | 16.49 |
| No. 8..... | 7 | 14 | 5.6 | 47.8 | 47.7 | 99.8 | .430 | 20.55 | 20.52 |
| Total..... | 70 | 702 | 5.5 | 49.6 | 44.8 | 90.3 | .400 | 19.84 | 17.90 |
| | Shavers and scrapers, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 61 | 5.6 | 49.2 | 46.1 | 93.7 | \$0.505 | \$24.85 | \$23.28 |
| No. 2..... | 17 | 139 | 5.4 | 48.4 | 42.0 | 86.8 | .484 | 23.43 | 20.32 |
| No. 3..... | 17 | 235 | 5.5 | 49.1 | 44.4 | 90.4 | .464 | 22.78 | 20.60 |
| No. 4..... | 4 | 5 | 5.4 | 46.4 | 47.7 | 102.8 | .461 | 21.39 | 22.01 |
| No. 5..... | 12 | 143 | 5.2 | 52.4 | 37.8 | 72.1 | .486 | 25.47 | 18.37 |
| No. 6..... | 5 | 31 | 5.4 | 55.9 | 47.7 | 85.3 | .478 | 26.72 | 22.78 |
| No. 7..... | 2 | 14 | 5.9 | 54.2 | 52.1 | 96.1 | .501 | 27.15 | 26.09 |
| No. 8..... | 6 | 17 | 5.8 | 48.0 | 48.7 | 101.5 | .534 | 25.63 | 26.00 |
| Total..... | 70 | 645 | 5.4 | 50.1 | 43.1 | 86.0 | .480 | 24.05 | 20.68 |
| | Gutters, bung droppers, and rippers-open, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 33 | 5.8 | 50.4 | 48.1 | 95.4 | \$0.538 | \$27.12 | \$25.85 |
| No. 2..... | 16 | 58 | 5.4 | 48.2 | 42.8 | 88.8 | .521 | 25.11 | 22.30 |
| No. 3..... | 17 | 89 | 5.6 | 49.0 | 47.2 | 96.3 | .520 | 25.48 | 24.57 |
| No. 4..... | 3 | 4 | 5.0 | 47.0 | 45.9 | 97.7 | .481 | 22.61 | 22.06 |
| No. 5..... | 13 | 43 | 5.5 | 52.3 | 42.2 | 80.7 | .523 | 27.35 | 22.05 |
| No. 6..... | 5 | 28 | 5.6 | 55.9 | 48.8 | 87.3 | .542 | 30.30 | 26.46 |
| No. 7..... | 3 | 4 | 5.3 | 54.5 | 39.3 | 72.1 | .595 | 32.43 | 23.39 |
| No. 8..... | 6 | 8 | 5.6 | 48.0 | 47.9 | 99.8 | .551 | 26.45 | 26.38 |
| Total..... | 70 | 267 | 5.6 | 50.3 | 45.6 | 90.7 | .527 | 26.51 | 24.03 |
| | Splitters, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 28 | 5.6 | 50.1 | 47.6 | 95.0 | \$0.622 | \$31.16 | \$29.63 |
| No. 2..... | 17 | 45 | 5.6 | 48.5 | 46.5 | 95.9 | .562 | 27.26 | 26.16 |
| No. 3..... | 16 | 59 | 5.6 | 49.1 | 47.7 | 97.1 | .571 | 28.04 | 27.27 |
| No. 4..... | 3 | 3 | 5.3 | 48.0 | 45.5 | 94.8 | .543 | 26.06 | 24.72 |
| No. 5..... | 12 | 30 | 5.6 | 51.2 | 41.1 | 80.3 | .581 | 29.75 | 23.88 |
| No. 6..... | 5 | 9 | 5.7 | 55.3 | 50.5 | 91.3 | .599 | 33.12 | 30.25 |
| No. 7..... | 2 | 3 | 6.0 | 54.3 | 58.9 | 108.5 | .643 | 34.91 | 37.84 |
| No. 8..... | 5 | 5 | 5.4 | 48.0 | 44.5 | 92.7 | .628 | 30.14 | 27.92 |
| Total..... | 67 | 182 | 5.6 | 49.8 | 46.5 | 93.4 | .583 | 29.03 | 27.10 |

¹Includes drivers, penners, steamers, singers, washers, aitchbone breakers, and toe pullers.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT—Continued

Casings department

| District | Casing pullers or runners, male | | | | | | | | |
|------------|--|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 8 | 109 | 5.7 | 49.3 | 47.2 | 95.7 | \$0.483 | \$23.81 | \$22.82 |
| No. 2..... | 17 | 177 | 5.4 | 48.3 | 42.5 | 88.0 | .462 | 22.31 | 19.65 |
| No. 3..... | 16 | 216 | 5.7 | 49.0 | 47.4 | 96.7 | .484 | 23.72 | 22.96 |
| No. 4..... | 7 | 26 | 5.0 | 47.5 | 40.1 | 84.4 | .453 | 21.52 | 18.16 |
| No. 5..... | 11 | 88 | 5.4 | 51.5 | 37.8 | 73.4 | .435 | 22.40 | 16.44 |
| No. 6..... | 7 | 56 | 5.3 | 53.6 | 43.7 | 81.5 | .537 | 28.78 | 23.49 |
| No. 7..... | 3 | 18 | 5.1 | 54.7 | 49.1 | 89.8 | .415 | 22.70 | 20.38 |
| No. 8..... | 7 | 24 | 5.4 | 47.8 | 47.0 | 98.3 | .520 | 24.86 | 24.40 |
| Total..... | 76 | 714 | 5.5 | 49.6 | 44.5 | 89.7 | .476 | 23.61 | 21.16 |
| District | Strippers, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 6 | 55 | 5.8 | 49.7 | 48.9 | 98.4 | \$0.440 | \$21.87 | \$21.51 |
| No. 2..... | 15 | 73 | 5.2 | 48.2 | 42.3 | 87.8 | .432 | 20.82 | 18.27 |
| No. 3..... | 16 | 89 | 5.5 | 48.7 | 47.5 | 97.5 | .411 | 20.02 | 19.53 |
| No. 4..... | 5 | 10 | 4.9 | 46.4 | 41.0 | 88.4 | .399 | 18.51 | 16.36 |
| No. 5..... | 10 | 29 | 5.1 | 50.2 | 39.3 | 78.3 | .421 | 21.13 | 16.56 |
| No. 6..... | 6 | 16 | 5.5 | 52.9 | 48.3 | 91.3 | .462 | 24.44 | 22.30 |
| No. 7..... | 3 | 3 | 5.3 | 53.0 | 49.6 | 93.6 | .362 | 19.19 | 17.97 |
| No. 8..... | 8 | 14 | 5.9 | 47.6 | 51.5 | 108.2 | .483 | 22.99 | 24.85 |
| Total..... | 69 | 289 | 5.4 | 49.1 | 45.7 | 93.1 | .429 | 21.06 | 19.58 |
| District | Fatters and slimmers, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 6 | 91 | 5.4 | 48.9 | 46.8 | 95.7 | \$0.509 | \$24.89 | \$23.81 |
| No. 2..... | 17 | 163 | 5.3 | 48.1 | 42.5 | 88.4 | .477 | 22.94 | 20.30 |
| No. 3..... | 14 | 122 | 5.6 | 49.2 | 47.9 | 97.4 | .476 | 23.42 | 22.77 |
| No. 4..... | 6 | 29 | 4.9 | 47.5 | 39.4 | 82.9 | .461 | 21.90 | 18.18 |
| No. 5..... | 12 | 44 | 5.1 | 52.6 | 42.6 | 81.0 | .458 | 24.09 | 19.54 |
| No. 6..... | 5 | 43 | 4.7 | 50.4 | 37.2 | 73.8 | .548 | 27.62 | 20.34 |
| No. 7..... | 3 | 9 | 5.1 | 52.9 | 44.9 | 84.9 | .437 | 23.12 | 19.63 |
| No. 8..... | 9 | 25 | 5.6 | 47.8 | 50.1 | 104.8 | .507 | 24.23 | 25.42 |
| Total..... | 72 | 526 | 5.3 | 49.1 | 44.3 | 90.2 | .486 | 23.86 | 21.53 |
| District | Blowers, graders, and inspectors, female | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 4 | 81 | 5.6 | 49.1 | 45.1 | 91.9 | \$0.378 | \$18.56 | \$17.02 |
| No. 2..... | 13 | 66 | 5.5 | 48.0 | 44.3 | 92.3 | .309 | 14.83 | 13.70 |
| No. 3..... | 11 | 145 | 5.6 | 48.8 | 47.1 | 96.5 | .294 | 14.35 | 13.86 |
| No. 4..... | 1 | (3) | (3) | (3) | (3) | (3) | (3) | (3) | (3) |
| No. 5..... | 5 | 32 | 5.3 | 49.9 | 38.7 | 77.6 | .272 | 13.57 | 10.52 |
| No. 6..... | 2 | 18 | 5.5 | 48.0 | 40.3 | 84.0 | .335 | 16.08 | 13.49 |
| No. 8..... | 2 | 4 | 6.0 | 47.3 | 47.3 | 100.0 | .401 | 18.97 | 18.97 |
| Total..... | 38 | 347 | 5.5 | 48.7 | 44.9 | 92.2 | .318 | 15.49 | 14.27 |

³ Data included in total.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT—Continued

Sausage department

| District | Machine tenders, male ⁴ | | | | | | | | |
|------------|---|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 67 | 5.7 | 49.1 | 46.7 | 95.1 | \$0.475 | \$23.32 | \$22.20 |
| No. 2..... | 16 | 89 | 5.3 | 48.3 | 45.4 | 94.0 | .478 | 23.09 | 21.70 |
| No. 3..... | 17 | 97 | 5.8 | 48.9 | 46.8 | 95.7 | .452 | 22.10 | 21.15 |
| No. 4..... | 7 | 32 | 5.4 | 47.2 | 49.1 | 104.0 | .392 | 18.50 | 19.25 |
| No. 5..... | 13 | 44 | 5.5 | 51.6 | 50.2 | 97.3 | .509 | 26.26 | 25.57 |
| No. 6..... | 5 | 19 | 6.0 | 54.0 | 51.8 | 95.9 | .582 | 31.43 | 30.17 |
| No. 7..... | 3 | 10 | 5.8 | 54.3 | 57.8 | 106.4 | .545 | 29.59 | 31.51 |
| No. 8..... | 10 | 24 | 5.8 | 49.3 | 50.6 | 102.6 | .492 | 24.26 | 24.87 |
| Total..... | 78 | 382 | 5.6 | 49.4 | 47.8 | 96.8 | .476 | 23.51 | 22.77 |
| | Stuffers, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 74 | 5.4 | 48.5 | 44.1 | 90.9 | \$0.566 | \$27.45 | \$25.00 |
| No. 2..... | 16 | 92 | 5.3 | 48.1 | 45.3 | 94.2 | .509 | 24.48 | 23.04 |
| No. 3..... | 17 | 83 | 5.8 | 49.7 | 46.1 | 92.8 | .490 | 24.35 | 22.60 |
| No. 4..... | 6 | 19 | 5.5 | 47.6 | 46.0 | 96.6 | .500 | 23.80 | 22.99 |
| No. 5..... | 12 | 40 | 5.5 | 49.3 | 49.7 | 100.8 | .512 | 25.24 | 25.46 |
| No. 6..... | 6 | 48 | 5.9 | 54.6 | 44.9 | 82.2 | .558 | 30.47 | 25.03 |
| No. 7..... | 4 | 12 | 5.6 | 54.4 | 52.4 | 96.3 | .451 | 24.53 | 23.66 |
| No. 8..... | 10 | 23 | 5.8 | 48.5 | 48.0 | 99.0 | .548 | 26.58 | 26.32 |
| Total..... | 78 | 391 | 5.6 | 49.6 | 46.1 | 92.9 | .522 | 25.89 | 24.02 |
| | Linkers, twisters, tiers, and hangers, male | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 3 | 13 | 5.6 | 47.5 | 45.2 | 95.2 | \$0.454 | \$21.57 | \$20.55 |
| No. 2..... | 5 | 28 | 5.5 | 48.4 | 46.8 | 96.7 | .475 | 22.99 | 22.24 |
| No. 3..... | 3 | 6 | 6.0 | 49.0 | 45.4 | 92.7 | .382 | 18.72 | 17.34 |
| No. 5..... | 6 | 12 | 5.3 | 48.6 | 44.1 | 90.7 | .419 | 20.36 | 18.49 |
| No. 6..... | 2 | 7 | 6.0 | 54.0 | 44.7 | 82.8 | .471 | 25.43 | 21.05 |
| No. 7..... | 2 | 3 | 5.3 | 54.7 | 49.7 | 90.9 | .364 | 19.91 | 18.12 |
| No. 8..... | 1 | (³) | (³) | (³) | (³) | (³) | (³) | (³) | (³) |
| Total..... | 22 | 70 | 5.6 | 49.1 | 45.7 | 93.1 | .447 | 21.95 | 20.44 |
| | Linkers, twisters, tiers, and hangers, female | | | | | | | | |
| | Number of establishments | Number of wage earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 166 | 5.6 | 49.3 | 44.2 | 89.7 | \$0.380 | \$18.73 | \$16.82 |
| No. 2..... | 15 | 242 | 5.3 | 48.3 | 42.9 | 88.8 | .347 | 16.76 | 14.88 |
| No. 3..... | 17 | 284 | 5.5 | 49.4 | 40.8 | 82.6 | .297 | 14.67 | 12.14 |
| No. 4..... | 7 | 61 | 5.1 | 47.9 | 41.2 | 86.0 | .310 | 14.85 | 12.80 |
| No. 5..... | 13 | 141 | 5.3 | 49.2 | 44.4 | 90.2 | .296 | 14.56 | 13.15 |
| No. 6..... | 6 | 77 | 5.8 | 50.8 | 41.6 | 81.9 | .334 | 16.97 | 13.92 |
| No. 7..... | 4 | 48 | 5.6 | 49.3 | 47.4 | 96.1 | .275 | 15.56 | 13.06 |
| No. 8..... | 10 | 81 | 5.6 | 47.6 | 43.6 | 91.6 | .346 | 16.47 | 15.10 |
| Total..... | 79 | 1,100 | 5.4 | 49.0 | 42.8 | 87.3 | .327 | 16.02 | 14.00 |

³ Data included in total.⁴ Includes cutters, choppers, grinders, mixers, curers, feeders, spicers, and rockers.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT—Continued

Canning department

| District | Packers, female ³ | | | | | | | | |
|------------|-------------------------------|------------------------|---|----------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------------|-----------------------------------|
| | Number of establishments | Number of wage-earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 7 | 302 | 5.7 | 48.9 | 46.5 | 95.1 | \$0.385 | \$18.83 | \$17.90 |
| No. 2..... | 13 | 314 | 5.2 | 48.0 | 42.9 | 89.4 | .315 | 15.12 | 13.49 |
| No. 3..... | 17 | 290 | 5.6 | 50.0 | 41.2 | 82.4 | .295 | 14.75 | 12.16 |
| No. 4..... | 7 | 119 | 5.0 | 47.5 | 38.5 | 81.1 | .261 | 12.40 | 10.07 |
| No. 5..... | 9 | 84 | 5.7 | 50.4 | 43.4 | 86.1 | .272 | 13.71 | 11.08 |
| No. 6..... | 4 | 70 | 5.8 | 50.3 | 41.6 | 82.7 | .301 | 15.14 | 12.52 |
| No. 7..... | 3 | 17 | 5.7 | 49.5 | 51.9 | 104.8 | .236 | 11.68 | 12.26 |
| No. 8..... | 6 | 90 | 5.7 | 47.7 | 43.7 | 91.6 | .392 | 18.70 | 17.12 |
| Total..... | 66 | 1,286 | 5.5 | 48.9 | 43.1 | 88.1 | .325 | 15.89 | 13.98 |
| | Labelers and wrappers, female | | | | | | | | |
| | Number of establishments | Number of wage-earners | Average number of days worked in 1 week | Average full-time hours per week | Hours actually worked in 1 week | | Average earnings per hour | Average full-time earnings per week | Average actual earnings in 1 week |
| | | | | | Average number | Per cent of full time | | | |
| No. 1..... | 4 | 60 | 5.1 | 47.8 | 39.6 | 82.8 | \$0.366 | \$17.49 | \$14.48 |
| No. 2..... | 5 | 18 | 5.5 | 48.0 | 45.3 | 94.4 | .361 | 17.33 | 16.34 |
| No. 3..... | 6 | 21 | 6.0 | 50.3 | 46.1 | 91.7 | .262 | 13.18 | 12.09 |
| No. 4..... | 5 | 6 | 5.2 | 48.0 | 40.5 | 84.4 | .266 | 12.77 | 10.76 |
| No. 5..... | 7 | 52 | 5.4 | 48.6 | 40.3 | 82.9 | .253 | 12.30 | 10.20 |
| No. 6..... | 3 | 5 | 5.2 | 50.4 | 37.7 | 74.8 | .289 | 14.57 | 10.88 |
| Total..... | 30 | 162 | 5.4 | 48.5 | 41.3 | 85.2 | .309 | 14.99 | 12.76 |

³ Includes sliced bacon and chipped dried beef in cans, glass jars, or cartons, by hand.

Regular Full-Time Hours Per Week and Day, 1931

TABLE 6 shows regular or customary full-time hours per week and per day (Monday to Thursday, Friday, and Saturday), by States, for all departments covered in the 1931 study. Data are given in this table by departments rather than by establishments for the reason that the regular hours differ as between the several departments in a number of establishments. The 90 establishments canvassed had an aggregate of 1,007 departments.

Full-time hours per week ranged from 40 in 1 department to 60 in 35 departments. Hours per day ranged from 8 to 11 on Monday to Friday and from 4 to 11 on Saturday. The hours of 679 departments were 8 per day, Monday to Saturday, or 48 per week, and of 1 department were 8 per day, Monday to Friday, with no work on Saturday, or 40 per week.

TABLE 6.—NUMBER OF DEPARTMENTS IN EACH STATE WITH SPECIFIED NUMBER OF FULL-TIME HOURS PER WEEK AND PER DAY, 1931

| Full-time hours per week | Full-time hours per day | | | Number of departments in— | | | | | | | | | | | | | | | Total departments | | | | | |
|--------------------------|-------------------------|--------|----------|---------------------------|----------|-------------------------------|---------------------|----------|---------|------|--------|----------|----------|----------------------------|----------|----------|-------------------------|------------------------|-------------------|----------|-----------------------|--------------|-------|-----------|
| | Monday to Thursday | Friday | Saturday | California | Colorado | Connecticut and Massachusetts | Florida and Georgia | Illinois | Indiana | Iowa | Kansas | Maryland | Michigan | Minnesota and South Dakota | Missouri | Nebraska | New Jersey and New York | Ohio and West Virginia | | Oklahoma | Oregon and Washington | Pennsylvania | Texas | Wisconsin |
| 40 | 8 | 8 | 0 | | | | | 11 | | | | | | | | | 1 | | 11 | | 12 | | | |
| 44 | 8 | 8 | 4 | 10 | | | | 10 | 11 | | | 1 | | | | | | | 1 | | | | | |
| 45 | 8 | 8 | 5 | 34 | 25 | 2 | | 92 | 13 | 72 | 95 | | | 52 | 50 | 52 | 29 | 22 | 12 | 45 | 13 | 46 | 25 | |
| 48 | 19 | 8 | 8 | | | | | 1 | | | | | | | | | | | | | | | | |
| 48 | 28 | 8 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 48 | 38 | 8 | 3 | | | | | | | | | | | | | | | | | | | | | |
| 45 | 38 | 3 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 45 | 40½ | 9 | 4½ | | | | | | | | | | | | | | | | | | | | | |
| 50 | 9 | 9 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 50 | 29 | 29 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 50 | 39 | 39 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 40½ | 9½ | 9½ | 5 | | | | | | | | | | | | | | | | | | | | | |
| 52½ | 29½ | 29½ | 5 | | | | | | | | | | | | | | | | | | | | | |
| 52½ | 39 | 39 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 50 | 39 | 39 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 54 | 9 | 9 | 9 | | | | | | | | | | | | | | | | | | | | | |
| 54 | 29 | 29 | 29 | 1 | | 10 | | | | | | 7 | | 13 | 13 | | 13 | | | | | | | |
| 48 | 38 | 38 | 3 | | | | | | | | | | | | | | | | | | | | | |
| 54 | 29 | 29 | 29 | | | | | | | | | | | | | | | | | | | | | |
| 54 | 39 | 39 | 38 | | | | | | | | | | | | | | | | | | | | | |
| 53 | 39 | 39 | 38 | | | | | | | | | | | | | | | | | | | | | |
| 55 | 10 | 10 | 5 | | | | 3 | | | | | 9 | 4 | | | | | | | | | | | |
| 55 | 10 | 10 | 4 | | | | 10 | | | | | | | | | | | | | | | | | |
| 55 | 210 | 210 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 45 | 38 | 35 | 5 | | | | | | | | | 2 | | | | | | | | | | | | |
| 55 | 210 | 210 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 54 | 310 | 310 | 4 | | | | | | | | | | | | | | | | | | | | | |
| 57½ | 10 | 10 | 7½ | | | | | | | | | | | | | | | | | | | | | |
| 58 | 10 | 10 | 8 | | | | | 8 | | | | | | | | | | | | | | | | |
| 60 | 10 | 10 | 10 | | | | | | | | | | | | | | | | | | | | | |
| 60 | 11 | 11 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 60 | 210 | 210 | 310 | | | | | | | | | | | | | | | | | | | | | |
| 40½ | 39 | 39 | 34½ | | | | | | | | | | | | | | | | | | | | | |
| 60 | 210 | 210 | 310 | | | | | | | | | | | | | | | | | | | | | |
| 54 | 39 | 39 | 39 | | | | | | | | | | | | | | | | | | | | | |
| 60 | 210 | 210 | 310 | | | | | | | | | | | | | | | | | | | | | |
| 54 | 310 | 310 | 34 | | | | | | | | | | | | | | | | | | | | | |
| Total | 45 | 25 | 34 | 16 | 138 | 24 | 85 | 95 | 32 | 25 | 65 | 63 | 52 | 72 | 47 | 25 | 49 | 32 | 58 | 25 | 1,007 | | | |

1 Work 8 hours on Thursday.

2 Males.

3 Females.

4 Work 10 hours on Saturday for 6 months, the remaining 6 months no Saturday work; yearly average, 5 hours.

Wage-Rate Changes in American Industries

Manufacturing Industries

DATA concerning wage-rate changes in 89 manufacturing industries included in the monthly employment survey of the Bureau of Labor Statistics are presented in the following table.

Of the 18,254 manufacturing establishments furnishing employment data in April, 17,625 establishments, or 96.6 per cent of the total, reported no change in wage rates during the month ending April 15, 1932. The employees whose wage rates were reported unchanged over the month interval totaled 2,709,502, comprising 97.1 per cent of the total number of employees included in this survey of manufacturing industries.

Decreases in rates of wages were reported by 628 establishments, or 3.4 per cent of the total number of establishments reporting. These decreases, averaging 10.8 per cent, affected 82,063 employees, or 2.9 per cent of all employees in the establishments reporting. An increase in wage rates, averaging 10 per cent and affecting all employees was reported by one establishment in the bolt and nut industry.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING APRIL 15, 1932

| Industry | Estab- lish- ments report- ing | Total number of em- ployees | Number of establish- ments reporting— | | | Number of employees having— | | |
|--|--|--------------------------------------|--|------------------------|------------------------|--------------------------------|------------------------|------------------------|
| | | | No wage changes | Wage in- creases | Wage de- creases | No wage changes | Wage in- creases | Wage de- creases |
| All manufacturing industries..... | 18, 254 | 2, 791, 626 | 17, 625 | 1 | 628 | 2, 709, 502 | 61 | 82, 063 |
| Per cent of total..... | 100. 0 | 100. 0 | 96. 6 | (1) | 3. 4 | 97. 1 | (1) | 2. 9 |
| Slaughtering and meat packing..... | 231 | 81, 979 | 225 | — | 6 | 80, 457 | — | 1, 522 |
| Confectionery..... | 343 | 31, 701 | 333 | — | 10 | 30, 623 | — | 1, 078 |
| Ice cream..... | 395 | 12, 160 | 389 | — | 6 | 11, 994 | — | 166 |
| Flour..... | 456 | 16, 506 | 451 | — | 5 | 16, 365 | — | 141 |
| Baking..... | 937 | 63, 220 | 916 | — | 21 | 61, 438 | — | 1, 782 |
| Sugar refining, cane..... | 16 | 7, 957 | 16 | — | — | 7, 957 | — | — |
| Beet sugar..... | 48 | 2, 254 | 48 | — | — | 2, 254 | — | — |
| Beverages..... | 343 | 10, 132 | 341 | — | 2 | 10, 069 | — | 63 |
| Butter..... | 270 | 5, 331 | 261 | — | 9 | 5, 181 | — | 150 |
| Cotton goods..... | 613 | 194, 901 | 592 | — | 21 | 188, 234 | — | 6, 667 |
| Hosiery and knit goods..... | 448 | 100, 783 | 433 | — | 15 | 96, 782 | — | 4, 001 |
| Silk goods..... | 270 | 39, 665 | 264 | — | 6 | 39, 392 | — | 273 |
| Woolen and worsted goods..... | 252 | 42, 068 | 239 | — | 13 | 40, 041 | — | 2, 027 |
| Carpets and rugs..... | 36 | 14, 274 | 36 | — | — | 14, 274 | — | — |
| Dyeing and finishing textiles..... | 151 | 35, 587 | 145 | — | 6 | 34, 372 | — | 1, 215 |
| Clothing, men's..... | 379 | 55, 460 | 373 | — | 6 | 54, 601 | — | 859 |
| Shirts and collars..... | 112 | 13, 890 | 108 | — | 4 | 13, 656 | — | 234 |
| Clothing, women's..... | 407 | 28, 522 | 403 | — | 4 | 28, 166 | — | 356 |
| Millinery..... | 144 | 10, 269 | 140 | — | 4 | 9, 732 | — | 537 |
| Corsets and allied garments..... | 32 | 5, 893 | 30 | — | 2 | 5, 599 | — | 294 |
| Cotton small wares..... | 114 | 10, 709 | 107 | — | 7 | 10, 518 | — | 191 |
| Hats, fur-felt..... | 38 | 4, 710 | 38 | — | — | 4, 710 | — | — |
| Men's furnishings..... | 75 | 5, 746 | 74 | — | 1 | 5, 734 | — | 12 |
| Iron and steel..... | 221 | 202, 075 | 216 | — | 5 | 197, 985 | — | 4, 090 |
| Cast-iron pipe..... | 43 | 6, 863 | 40 | — | 3 | 6, 423 | — | 440 |
| Structural and ornamental ironwork..... | 193 | 18, 563 | 182 | — | 11 | 17, 681 | — | 882 |
| Hardware..... | 113 | 24, 060 | 104 | — | 9 | 23, 032 | — | 1, 028 |
| Steam fittings and steam and hot- water heating apparatus..... | 113 | 18, 051 | 111 | — | 2 | 18, 032 | — | 19 |
| Stoves..... | 160 | 15, 484 | 149 | — | 11 | 14, 482 | — | 1, 002 |
| Bolts, nuts, washers, and rivets..... | 69 | 8, 872 | 67 | 1 | 1 | 8, 768 | 61 | 43 |
| Cutlery (not including silver and plated cutlery) and edge tools..... | 130 | 10, 577 | 128 | — | 2 | 10, 461 | — | 116 |
| Forgings, iron and steel..... | 62 | 5, 815 | 62 | — | — | 5, 815 | — | — |
| Plumbers' supplies..... | 66 | 4, 590 | 61 | — | 5 | 4, 417 | — | 173 |

¹ Less than one-tenth of 1 per cent.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING APRIL 15, 1932—Continued

| Industry | Estab- lish- ments report- ing | Total number of em- ployees | Number of establish- ments reporting— | | | Number of employees having— | | |
|---|--|--------------------------------------|--|------------------------|------------------------|--------------------------------|------------------------|------------------------|
| | | | No wage changes | Wage in- creases | Wage de- creases | No wage changes | Wage in- creases | Wage de- creases |
| Tin cans and other tinware..... | 56 | 7,603 | 51 | ----- | 5 | 7,503 | ----- | 100 |
| Tools (not including edge tools, ma- chine tools, files, or saws)..... | 127 | 7,822 | 120 | ----- | 7 | 6,653 | ----- | 1,169 |
| Wirework..... | 71 | 5,329 | 69 | ----- | 2 | 5,256 | ----- | 73 |
| Lumber, sawmills..... | 667 | 61,335 | 613 | ----- | 54 | 54,023 | ----- | 7,312 |
| Lumber, millwork..... | 463 | 20,232 | 448 | ----- | 15 | 18,832 | ----- | 1,400 |
| Furniture..... | 492 | 45,237 | 470 | ----- | 22 | 44,148 | ----- | 1,089 |
| Turpentine and rosin..... | 21 | 1,051 | 21 | ----- | ----- | 1,051 | ----- | ----- |
| Leather..... | 174 | 25,291 | 165 | ----- | 9 | 24,532 | ----- | 759 |
| Boots and shoes..... | 328 | 109,204 | 322 | ----- | 6 | 108,011 | ----- | 1,193 |
| Paper and pulp..... | 420 | 81,239 | 406 | ----- | 14 | 77,339 | ----- | 3,900 |
| Paper boxes..... | 325 | 22,116 | 321 | ----- | 4 | 21,950 | ----- | 166 |
| Printing, book and job..... | 760 | 55,583 | 726 | ----- | 34 | 53,496 | ----- | 2,087 |
| Printing, newspapers and periodicals..... | 467 | 71,940 | 451 | ----- | 16 | 70,575 | ----- | 1,365 |
| Chemicals..... | 111 | 20,697 | 110 | ----- | 1 | 20,629 | ----- | 68 |
| Fertilizers..... | 204 | 12,390 | 199 | ----- | 5 | 12,028 | ----- | 362 |
| Petroleum refining..... | 123 | 49,545 | 114 | ----- | 9 | 41,102 | ----- | 8,443 |
| Cottonseed oil, cake, and meal..... | 54 | 2,377 | 53 | ----- | 1 | 2,364 | ----- | 13 |
| Druggists' preparations..... | 40 | 7,648 | 37 | ----- | 3 | 6,196 | ----- | 1,452 |
| Explosives..... | 22 | 2,832 | 11 | ----- | 11 | 1,802 | ----- | 1,030 |
| Paints and varnishes..... | 371 | 15,994 | 349 | ----- | 22 | 14,308 | ----- | 1,686 |
| Rayon..... | 22 | 26,757 | 22 | ----- | ----- | 26,757 | ----- | ----- |
| Soap..... | 82 | 12,981 | 79 | ----- | 3 | 12,917 | ----- | 64 |
| Cement..... | 126 | 14,642 | 116 | ----- | 10 | 13,537 | ----- | 1,105 |
| Brick, tile, and terra cotta..... | 704 | 20,382 | 688 | ----- | 16 | 19,804 | ----- | 578 |
| Pottery..... | 121 | 15,183 | 109 | ----- | 12 | 13,895 | ----- | 1,288 |
| Glass..... | 190 | 35,549 | 186 | ----- | 4 | 35,199 | ----- | 350 |
| Marble, granite, slate, and other stone products..... | 235 | 6,245 | 225 | ----- | 10 | 5,978 | ----- | 267 |
| Stamped and enameled ware..... | 89 | 13,795 | 80 | ----- | 9 | 12,867 | ----- | 928 |
| Brass, bronze, and copper products..... | 203 | 29,315 | 193 | ----- | 10 | 28,281 | ----- | 1,034 |
| Aluminum manufactures..... | 25 | 5,253 | 25 | ----- | ----- | 5,253 | ----- | ----- |
| Clocks, time-recording devices, and clock movements..... | 22 | 4,532 | 22 | ----- | ----- | 4,532 | ----- | ----- |
| Gas and electric fixtures, lamps, lan- terns, and reflectors..... | 55 | 5,197 | 54 | ----- | 1 | 5,128 | ----- | 69 |
| Plated ware..... | 55 | 7,677 | 54 | ----- | 1 | 7,665 | ----- | 12 |
| Smelting and refining—copper, lead, and zinc..... | 25 | 8,134 | 23 | ----- | 2 | 7,728 | ----- | 406 |
| Jewelry..... | 158 | 8,668 | 153 | ----- | 5 | 8,595 | ----- | 73 |
| Chewing and smoking tobacco and snuff..... | 37 | 10,038 | 37 | ----- | ----- | 10,038 | ----- | ----- |
| Cigars and cigarettes..... | 224 | 46,924 | 222 | ----- | 2 | 46,818 | ----- | 106 |
| Automobiles..... | 246 | 224,508 | 236 | ----- | 10 | 222,627 | ----- | 1,881 |
| Aircraft..... | 31 | 5,721 | 30 | ----- | 1 | 5,698 | ----- | 23 |
| Cars, electric and steam railroad..... | 34 | 5,235 | 32 | ----- | 2 | 4,906 | ----- | 329 |
| Locomotives..... | 15 | 3,668 | 15 | ----- | ----- | 3,668 | ----- | ----- |
| Shipbuilding..... | 92 | 33,704 | 89 | ----- | 3 | 33,071 | ----- | 633 |
| Rubber tires and inner tubes..... | 40 | 45,170 | 39 | ----- | 1 | 44,642 | ----- | 528 |
| Rubber boots and shoes..... | 10 | 10,931 | 10 | ----- | ----- | 10,931 | ----- | ----- |
| Rubber goods, other than boots, shoes, tires, and inner tubes..... | 99 | 18,494 | 92 | ----- | 7 | 17,870 | ----- | 624 |
| Agricultural implements..... | 69 | 7,242 | 65 | ----- | 4 | 7,038 | ----- | 204 |
| Electrical machinery, apparatus, and supplies..... | 287 | 136,935 | 274 | ----- | 13 | 134,593 | ----- | 2,342 |
| Engines, turbines, tractors, and water wheels..... | 77 | 16,102 | 74 | ----- | 3 | 15,135 | ----- | 967 |
| Cash registers, adding machines, and calculating machines..... | 48 | 15,502 | 46 | ----- | 2 | 15,321 | ----- | 181 |
| Foundry and machine-shop products..... | 1,089 | 115,756 | 1,045 | ----- | 44 | 111,994 | ----- | 3,762 |
| Machine tools..... | 155 | 13,634 | 150 | ----- | 5 | 13,488 | ----- | 146 |
| Textile machinery and parts..... | 36 | 6,858 | 35 | ----- | 1 | 6,846 | ----- | 12 |
| Typewriters and supplies..... | 18 | 10,756 | 18 | ----- | ----- | 10,756 | ----- | ----- |
| Radio..... | 44 | 15,049 | 43 | ----- | 1 | 14,499 | ----- | 550 |
| Electric-railroad repair shops..... | 406 | 22,901 | 399 | ----- | 7 | 22,448 | ----- | 453 |
| Steam-railroad repair shops..... | 509 | 78,056 | 507 | ----- | 2 | 77,936 | ----- | 120 |

Nonmanufacturing Industries

IN THE following table are presented data concerning wage-rate changes, occurring between March 15 and April 15, 1932, reported by establishments in 14 nonmanufacturing groups included in the bureau's monthly survey of employment.

Increases in rates of wages were reported in only 1 of the 14 groups shown in the following table, one establishment in the retail trade group reporting an increase in wage rates over the month interval. Decreases in wage rates were reported in each of the 14 groups, with the exception of anthracite mining in which no change in wage rates was shown. The lowest average per cent of decrease in wage rates, 4.1, was reported in the telephone and telegraph group, while the highest average per cent of decrease, 15.7, was reported in the dyeing and cleaning group. The average per cent of decrease in the remaining groups ranged from 7.4 per cent in crude petroleum producing to 13.5 per cent in the canning and preserving.

TABLE 2.—WAGE CHANGES IN NONMANUFACTURING INDUSTRIES DURING MONTH ENDING APRIL 15, 1932

| Industry | Estab- lish- ments report- ing | Total num- ber of em- ployees | Number of establish- ments reporting | | | Number of employees having | | |
|--|--|---|---|------------------------|------------------------|-------------------------------|------------------------|------------------------|
| | | | No wage changes | Wage in- creases | Wage de- creases | No wage changes | Wage in- creases | Wage de- creases |
| Anthracite mining..... | 160 | 95,851 | 160 | | | 95,851 | | |
| Per cent of total..... | 100.0 | 100.0 | 100.0 | | | 100.0 | | |
| Bituminous coal mining..... | 1,237 | 162,745 | 1,166 | | 71 | 149,616 | | 13,129 |
| Per cent of total..... | 100.0 | 100.0 | 94.3 | | 5.7 | 91.9 | | 8.1 |
| Metalliferous mining..... | 262 | 27,714 | 237 | | 25 | 25,638 | | 2,076 |
| Per cent of total..... | 100.0 | 100.0 | 90.5 | | 9.5 | 92.5 | | 7.5 |
| Quarrying and nonmetallic mining..... | 619 | 21,866 | 587 | | 32 | 20,871 | | 995 |
| Per cent of total..... | 100.0 | 100.0 | 94.8 | | 5.2 | 95.4 | | 4.6 |
| Crude petroleum producing..... | 266 | 21,735 | 264 | | 2 | 21,714 | | 21 |
| Per cent of total..... | 100.0 | 100.0 | 99.2 | | 0.8 | 99.9 | | 0.1 |
| Telephone and telegraph..... | 8,215 | 287,876 | 7,821 | | 394 | 283,564 | | 4,312 |
| Per cent of total..... | 100.0 | 100.0 | 95.2 | | 4.8 | 98.5 | | 1.5 |
| Power and light..... | 3,541 | 223,200 | 3,486 | | 55 | 216,639 | | 6,561 |
| Per cent of total..... | 100.0 | 100.0 | 98.4 | | 1.6 | 97.1 | | 2.9 |
| Electric railroad operation and maintenance, exclusive of car shops..... | 491 | 132,645 | 479 | | 12 | 129,494 | | 3,151 |
| Per cent of total..... | 100.0 | 100.0 | 97.6 | | 2.4 | 97.6 | | 2.4 |
| Wholesale trade..... | 2,786 | 73,253 | 2,714 | | 72 | 71,756 | | 1,497 |
| Per cent of total..... | 100.0 | 100.0 | 97.4 | | 2.6 | 98.0 | | 2.0 |
| Retail trade..... | 13,223 | 347,094 | 13,160 | 1 | 62 | 345,762 | 9 | 1,323 |
| Per cent of total..... | 100.0 | 100.0 | 99.5 | (1) | 0.5 | 99.6 | (1) | 0.4 |
| Hotels..... | 2,264 | 136,646 | 2,246 | | 18 | 134,979 | | 1,667 |
| Per cent of total..... | 100.0 | 100.0 | 99.2 | | 0.8 | 98.8 | | 1.2 |
| Canning and preserving..... | 820 | 32,977 | 772 | | 46 | 31,224 | | 1,751 |
| Per cent of total..... | 100.0 | 100.0 | 94.1 | | 5.6 | 94.7 | | 5.3 |
| Laundries..... | 1,004 | 60,785 | 989 | | 15 | 60,110 | | 675 |
| Per cent of total..... | 100.0 | 100.0 | 98.5 | | 1.5 | 98.9 | | 1.1 |
| Dyeing and cleaning..... | 404 | 12,337 | 400 | | 4 | 12,261 | | 76 |
| Per cent of total..... | 100.0 | 100.0 | 99.0 | | 1.0 | 99.4 | | 0.6 |

¹ Less than one-tenth of 1 per cent.

Wage Changes Reported by Trade-Unions Since February, 1932

UNION and municipal wage changes reported to the bureau during the past month and covering the months of February to May are presented in the table following.

The number of workers covered is 38,264, of whom 19,289 were reported to have gone on the 5-day week.

No renewals of wage agreements were reported.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, FEBRUARY TO MAY, 1932

| Industry or occupation, and locality | Date of change | Rate of wages | | Hours per week | |
|---|----------------|----------------------------------|----------------------------------|----------------|--------------|
| | | Before change | After change | Before change | After change |
| Bakers, Middletown, Conn..... | Apr. 8 | <i>Per week</i> \$40.00 | <i>Per week</i> \$30.00 | 48 | 48 |
| Barbers: | | | | | |
| Cleveland, Ohio..... | Mar. 31 | ¹ 28.00 | ² 26.00 | 54 | 54 |
| East Grand Forks, Minn..... | Mar. 1 | ³ 25.00 | ⁴ 22.75 | 58 | 58 |
| Quincy, Mass..... | do | ⁵ 30.00 | ⁶ 25.00 | 62 | 62 |
| Building trades: | | | | | |
| Bricklayers— | | <i>Per hour</i> | <i>Per hour</i> | | |
| Centralia, Ill..... | Apr. 1 | 1.50 | 1.35 | 44 | 44 |
| Elizabeth, N. J., and vicinity..... | Mar. 25 | 1.93 ³ / ₄ | 1.68 ³ / ₄ | 40 | 40 |
| Evansville, Ind., and vicinity..... | Mar. 22 | 1.50 | 1.00 | 44 | 44 |
| Fostoria, Ohio..... | Apr. 4 | 1.50 | 1.25 | 44 | 44 |
| Geneva, N. Y..... | Apr. 1 | 1.37 ¹ / ₂ | 1.23 ³ / ₄ | 40 | 40 |
| Newark, N. J., and vicinity..... | Mar. 15 | 1.93 ³ / ₄ | 1.68 ³ / ₄ | 40 | 40 |
| St. Louis, Mo., and vicinity..... | Apr. 22 | 1.75 | 1.50 | 44 | 40 |
| Schenectady, N. Y., and vicinity..... | Apr. 1 | 1.65 | 1.37 ¹ / ₂ | 40 | 40 |
| Stockton, Calif..... | Apr. 8 | 1.50 | 1.25 | 44 | 44 |
| Carpenters— | | | | | |
| Centralia, Ill..... | Apr. 1 | 1.00 | .90 | 40 | 40 |
| Colorado Springs, Colo..... | Apr. 14 | 1.12 ¹ / ₂ | 1.00 | 44 | 44 |
| Evansville, Ind..... | Apr. 1 | 1.25 | .85 | 40 | 40 |
| Geneva, N. Y..... | do | 1.00 | .95 | 44 | 40 |
| Lenox, Mass..... | Mar. 1 | 1.12 ¹ / ₂ | 1.00 | 44 | 40 |
| Lindsay, Calif..... | Mar. 15 | 1.00 | .87 ¹ / ₂ | (?) | (?) |
| Morristown, N. J., and vicinity..... | Apr. 1 | 1.50 | 1.25 | 40 | 40 |
| Norwich, Conn..... | Mar. 21 | 1.10 | .95 | 40 | 40 |
| Pittsfield, Mass..... | Apr. 1 | 1.25 | 1.00 | 40 | 40 |
| Rochester, N. Y., and vicinity..... | do | 1.26 ¹ / ₂ | 1.00 | 40 | 40 |
| Schenectady, N. Y..... | Apr. 5 | 1.37 ¹ / ₂ | 1.25 | 40 | 40 |
| Cement finishers, Newark, N. J..... | Mar. 15 | 1.93 ³ / ₄ | 1.68 ³ / ₄ | 40 | 40 |
| Electrical workers— | | | | | |
| Albany, N. Y..... | Apr. 11 | 1.35 | 1.20 | 40 | 40 |
| Geneva, N. Y..... | Apr. 1 | 1.12 ¹ / ₂ | 1.01 ¹ / ₄ | 44 | 40 |
| Madison, Wis..... | do | 1.40 | 1.20 | 40 | 40 |
| Schenectady, N. Y..... | Apr. 11 | 1.37 ¹ / ₂ | 1.20 | 40 | 40 |
| Troy, N. Y..... | do | 1.25 | 1.20 | 40 | 40 |
| Elevator constructors, Cincinnati, Ohio..... | May 1 | 1.49 | 1.33 ¹ / ₂ | 40 | 40 |
| Helpers..... | do | 1.04 | .93 | 40 | 40 |
| Hod carriers and laborers— | | | | | |
| Christopher, Ill..... | Mar. 1 | .75 | .62 ¹ / ₂ | (?) | (?) |
| Geneva, N. Y..... | Apr. 1 | 1.00 | .85 | (?) | (?) |
| Lathers, Madison, Wis..... | do | .65 | .60 | 40 | 40 |
| Painters, decorators, and paperhangers— | | | | | |
| Centralia, Ill..... | do | 1.50 | 1.37 ¹ / ₂ | 40 | 40 |
| Denver, Colo., and vicinity, sign and pictorial painters..... | do | 1.12 ¹ / ₂ | 1.01 | 40 | 40 |
| Geneva, N. Y..... | do | 1.37 ¹ / ₂ | 1.25 | 40 | 40 |
| Hannibal, Mo..... | do | 1.00 | .90 | 40 | 40 |
| Hannibal, Mo..... | Feb. 22 | 1.00 | .80 | 44 | 44 |
| Jacksonville, Ill., and vicinity..... | Apr. 1 | .87 ¹ / ₂ | .75 | 44 | 44 |
| Palo Alto, Calif..... | Mar. 1 | 1.12 ¹ / ₂ | 1.00 | 40 | 40 |
| St. Louis, Mo., and vicinity..... | Apr. 15 | 1.50 | 1.25 | 40 | 40 |
| San Mateo, Calif..... | Mar. 1 | 1.12 ¹ / ₂ | 1.00 | 40 | 40 |
| Worcester, Mass..... | do | 1.12 ¹ / ₂ | .95 | 40 | 40 |
| Plasterers— | | | | | |
| Centralia, Ill..... | Apr. 1 | 1.50 | 1.35 | 44 | 44 |
| Cincinnati, Ohio, and vicinity..... | Mar. 1 | 1.62 ¹ / ₂ | 1.37 ¹ / ₂ | 40 | 40 |
| Elizabeth, N. J., and vicinity..... | Mar. 25 | 1.93 ³ / ₄ | 1.68 ³ / ₄ | 40 | 40 |
| Geneva, N. Y..... | Apr. 1 | 1.37 ¹ / ₂ | 1.23 ³ / ₄ | 40 | 40 |
| Madison, Wis..... | do | 1.37 ¹ / ₂ | 1.25 | 40 | 40 |
| Newark, N. J., and vicinity..... | Mar. 15 | 1.93 ³ / ₄ | 1.68 ³ / ₄ | 40 | 40 |
| San Francisco, Calif..... | Apr. 11 | 1.37 ¹ / ₂ | 1.10 | 40 | 40 |
| Schenectady, N. Y..... | Apr. 1 | 1.65 | 1.37 ¹ / ₂ | 40 | 40 |
| Plumbers and steamfitters— | | | | | |
| Aurora, Ill., and vicinity..... | Mar. 1 | 1.50 | 1.25 | 40 | 40 |
| Centralia, Ill..... | Apr. 1 | 1.25 | 1.12 ¹ / ₂ | 44 | 44 |
| Chicago, Ill., sprinkler fitters..... | Mar. 11 | 1.70 | 1.37 ¹ / ₂ | 44 | 40 |
| Geneva, N. Y..... | Apr. 1 | 1.12 ¹ / ₂ | 1.01 ¹ / ₄ | 40 | 40 |
| Lockport, N. Y..... | Feb. 24 | 1.18 ³ / ₄ | 1.00 | 44 | 44 |
| Minneapolis, Minn..... | Mar. 15 | 1.12 ¹ / ₂ | 1.00 | 40 | 40 |

¹ And 60 per cent of receipts over \$38.² And 60 per cent of receipts over \$37.³ And 60 per cent of receipts over \$35.⁴ And 60 per cent of receipts over \$32.75.⁵ And 50 per cent of receipts over \$40.⁶ And 50 per cent of receipts over \$32.⁷ Not reported.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, FEBRUARY TO MAY, 1932—Continued

| Industry or occupation, and locality | Date of change | Rate of wages | | Hours per week | |
|--|----------------|-------------------------------|-------------------------------|----------------|--------------|
| | | Before change | After change | Before change | After change |
| Building trades—Continued. | | | | | |
| Roofers— | | <i>Per hour</i> | <i>Per hour</i> | | |
| Elmira, N. Y.----- | Apr. 1 | \$1.25 | \$1.00 | 40 | 40 |
| St. Louis, Mo.----- | Apr. 15 | 1.37½-1.50 | 1.17½-1.30 | 44 | 40 |
| Sheet-metal workers, Geneva, N. Y.----- | Apr. 1 | .95 | .90 | 44 | 40 |
| Structural-iron workers— | | | | | |
| Cincinnati, Ohio, and vicinity----- | May 1 | 1.40 | 1.25 | 40 | 40 |
| Elmira, N. Y., and vicinity----- | Apr. 1 | 1.37½ | 1.25 | 40 | 40 |
| Chauffeurs and teamsters: | | | | | |
| Hammond, Ind.----- | do----- | .70 | .58 | (7) | (7) |
| Montearey, Calif.----- | Mar. 15 | <i>Per day</i> 5.55 | <i>Per day</i> 5.00 | 48 | 48 |
| New York, N. Y., railway-express drivers----- | Feb. 10 | <i>Per week</i> 39.53 | <i>Per week</i> 35.58 | 48 | 48 |
| Oakland, Calif.----- | Apr. 10 | (7) | (8) | (7) | (7) |
| Sacramento, Calif.— | | | | | |
| Building-material teamsters----- | Mar. 1 | 33.00 | 30.00 | 44½ | 44½ |
| Lumber clerks----- | do----- | 33.00 | 30.00 | 44½ | 44½ |
| Lumber pilers----- | do----- | 27.00 | 25.00 | 44½ | 44½ |
| St. Louis, Mo., furniture and piano movers----- | Apr. 14 | <i>Per hour</i> .70 .75 | <i>Per hour</i> .60 .65 | 51 51 | 54 54 |
| Salem, Oreg----- | Feb. 17 | .45 | .35 | 60 | 60 |
| San Francisco, Calif.----- | Apr. 4 | (7) | (8) | (7) | (7) |
| Clothing: | | <i>Per week</i> | <i>Per week</i> | | |
| Boot and shoe workers, Whitman, Mass.----- | May 2 | 30.25 | 17.01 | 48 | 30 |
| Fur workers, Brooklyn, N. Y.----- | Feb. 1 | 33.00 | 30.00 | 44 | 40 |
| Hat makers, New York, N. Y.----- | May 1 | (7) | (7) | 44 | 40 |
| Furniture, upholsterers, Chicago, Ill.----- | Mar. 1 | 27.50 | 22.00 | 44 | 44 |
| Printing and publishing: | | | | | |
| Compositors and machine operators— | | | | | |
| Columbus, Ohio— | | | | | |
| Newspaper, day----- | May 8 | 55.00 | 55.00 | 48 | 45 |
| Newspaper, night----- | do----- | 59.00 | 59.00 | 48 | 45 |
| Huntington, W. Va.— | | | | | |
| Daywork----- | Mar. 1 | 45.00 | (9) | 48 | 48 |
| Nightwork----- | do----- | 48.00 | (9) | 48 | 48 |
| Railway workers, Newark, Ohio: | | <i>Per hour</i> | <i>Per hour</i> | | |
| Carmen and helpers, car cleaners, and pre- | Feb. 1 | .73 | (9) | 32 | 40 |
| parers----- | | .57 | (9) | 32 | 40 |
| Pipe fitters----- | Apr. 1 | .44 | (9) | 32 | 40 |
| | | .80 | .72 | 32 | 40 |
| Street railway workers, 1-man car and coach operators: | | | | | |
| Toledo, Ohio— | | | | | |
| First 6 months----- | Mar. 16 | .57 | .50 | 54 | 54 |
| Next 6 months----- | do----- | .59 | .52 | 54 | 54 |
| Thereafter----- | do----- | .62 | .55 | 54 | 54 |
| Youngstown, Ohio----- | Apr. 1 | .65 | .58½ | 70 | 70 |
| Municipal: | | <i>Per month</i> | <i>Per month</i> | | |
| Los Angeles, Calif.----- | do----- | 100.00-600.00 | 98.00-540.00 | 44 | 40 |
| Ottawa, Ill.----- | Apr. 15 | 75.00-300.00 | 65.00-275.00 | (7) | (7) |
| Sacramento, Calif., State-printing plant— | | <i>Per week</i> | <i>Per week</i> | | |
| Bindery women----- | Feb. 1 | 24.50 | 25.00 | 44 | 44 |
| Bookbinders----- | do----- | 50.00 | 51.00 | 44 | 44 |
| Compositors----- | do----- | 51.00 | 52.00 | 44 | 44 |
| Pressmen----- | do----- | 50.00 | 51.00 | 44 | 44 |

7 Not reported.

8 50 cents a day reduction.

9 10 per cent reduction.

Agricultural Wages in Canada, 1929 to 1931

IN CANADA in 1931 the wages of farm help were very much lower than they were in 1930, in which there was also a considerable decline from the preceding year. During the summer season of 1931 for the Dominion as a whole, the average monthly wages of male helpers were \$25, as compared with \$34 in the corresponding season of 1930 and \$40 in the summer of 1929. The value of board per month for male agricultural workers was also less last summer, being \$18, as against \$22 in 1930. By the year, wages and board together for male farm workers amounted in 1931 to \$439 (\$240 wages and \$199 board), and in 1930 to \$559 (\$326 wages and \$233 board).

Average wages for male agricultural labor in the various Provinces of Canada in 1929, 1930, and 1931 are given in the following table, compiled from the February, 1932, issue of the Monthly Bulletin of Agricultural Statistics, published by the Dominion Bureau of Statistics:

AVERAGE WAGES OF MALE FARM WORKERS IN CANADA, 1929, 1930, AND 1931

| Province and year | Per month, summer season | | | Per year | | |
|-----------------------|--------------------------|----------------|-------|-----------|----------------|-------|
| | Cash wage | Value of board | Total | Cash wage | Value of board | Total |
| Canada: | | | | | | |
| 1929..... | \$40 | \$23 | \$63 | \$373 | \$254 | \$627 |
| 1930..... | 34 | 22 | 56 | 326 | 233 | 559 |
| 1931..... | 25 | 18 | 43 | 240 | 199 | 439 |
| Prince Edward Island: | | | | | | |
| 1929..... | 34 | 18 | 52 | 327 | 207 | 534 |
| 1930..... | 32 | 18 | 50 | 308 | 205 | 513 |
| 1931..... | 25 | 14 | 39 | 250 | 163 | 413 |
| Nova Scotia: | | | | | | |
| 1929..... | 38 | 19 | 57 | 383 | 222 | 605 |
| 1930..... | 34 | 20 | 54 | 353 | 209 | 562 |
| 1931..... | 27 | 17 | 44 | 269 | 196 | 465 |
| New Brunswick: | | | | | | |
| 1929..... | 40 | 20 | 60 | 375 | 214 | 589 |
| 1930..... | 34 | 20 | 54 | 335 | 215 | 550 |
| 1931..... | 27 | 16 | 43 | 276 | 184 | 460 |
| Quebec: | | | | | | |
| 1929..... | 41 | 20 | 61 | 369 | 208 | 577 |
| 1930..... | 33 | 19 | 52 | 316 | 194 | 510 |
| 1931..... | 26 | 15 | 41 | 244 | 162 | 406 |
| Ontario: | | | | | | |
| 1929..... | 35 | 22 | 57 | 341 | 254 | 595 |
| 1930..... | 31 | 20 | 51 | 304 | 228 | 532 |
| 1931..... | 25 | 28 | 43 | 237 | 203 | 440 |
| Manitoba: | | | | | | |
| 1929..... | 38 | 23 | 61 | 352 | 256 | 608 |
| 1930..... | 32 | 21 | 53 | 298 | 258 | 556 |
| 1931..... | 22 | 17 | 39 | 213 | 197 | 410 |
| Saskatchewan: | | | | | | |
| 1929..... | 44 | 25 | 69 | 398 | 287 | 685 |
| 1930..... | 37 | 23 | 60 | 340 | 253 | 593 |
| 1931..... | 23 | 19 | 42 | 215 | 203 | 418 |
| Alberta: | | | | | | |
| 1929..... | 43 | 25 | 68 | 404 | 274 | 678 |
| 1930..... | 37 | 23 | 60 | 342 | 256 | 598 |
| 1931..... | 25 | 19 | 44 | 232 | 215 | 447 |
| British Columbia: | | | | | | |
| 1929..... | 49 | 27 | 76 | 482 | 310 | 792 |
| 1930..... | 46 | 26 | 72 | 450 | 291 | 741 |
| 1931..... | 35 | 23 | 58 | 358 | 275 | 633 |

¹ As given in original table; probably should be \$18, as the total is \$43.

Wages in France in October, 1931

THE annual wage study made by the General Statistical Bureau of France¹ gives the average wages of certain classes of workers who are represented in nearly all localities and which furnish, therefore, uniform elements of comparison. The information is furnished by officers of trade councils, employers' organizations, and mayors or other competent persons. The wage rates for 1931 show little variation from those of the preceding year, in many of the occupations the average hourly rate remaining unchanged. It should be pointed out, however, that the rates given in the following tables do not reflect the partial unemployment prevailing in many of the industries, which results in reduced earnings.

Table 1 gives the hourly wages in different occupations in October, 1930 and 1931, in Paris and other cities:

TABLE 1.—AVERAGE HOURLY WAGES IN FRENCH CITIES IN OCTOBER, 1930 AND 1931, BY OCCUPATION

[Conversions into United States currency on basis of franc=3.92 cents]

| Occupation | Average hourly wages in— | | | | | | | |
|-------------------------------|--------------------------|------------------------|-----------------|------------------------|-------------------------|------------------------|-----------------|------------------------|
| | Paris and its environs | | | | Cities other than Paris | | | |
| | 1930 | | 1931 | | 1930 | | 1931 | |
| | French currency | United States currency | French currency | United States currency | French currency | United States currency | French currency | United States currency |
| <i>Males</i> | <i>Francs</i> | <i>Cents</i> | <i>Francs</i> | <i>Cents</i> | <i>Francs</i> | <i>Cents</i> | <i>Francs</i> | <i>Cents</i> |
| Brewers..... | | | | | 3.60 | 14.1 | 3.52 | 13.8 |
| Printers, compositors..... | 7.20 | 28.2 | 6.95 | 27.2 | 4.45 | 17.4 | 4.45 | 17.4 |
| Bookbinders..... | 5.35 | 21.0 | 5.35 | 21.0 | 4.27 | 16.7 | 4.27 | 16.7 |
| Tanners..... | | | | | 3.80 | 14.9 | 3.80 | 14.9 |
| Saddlers, harness makers..... | | | | | 3.80 | 14.9 | 3.80 | 14.9 |
| Shoemakers..... | | | | | 3.65 | 14.3 | 3.65 | 14.3 |
| Tailors..... | 6.50 | 25.5 | 6.50 | 25.5 | 4.10 | 16.1 | 4.10 | 16.1 |
| Dyers, scourers..... | | | | | 3.77 | 14.8 | 3.77 | 14.8 |
| Weavers..... | | | | | 3.27 | 12.8 | 3.23 | 12.7 |
| Rope makers..... | | | | | 3.48 | 13.6 | 3.48 | 13.6 |
| Wheelwrights..... | | | | | 4.00 | 15.7 | 4.06 | 15.9 |
| Wood turners..... | 6.75 | 26.5 | 6.75 | 26.5 | 4.20 | 16.5 | 4.17 | 16.3 |
| Coopers..... | | | | | 4.03 | 15.8 | 4.07 | 16.0 |
| Cabinetmakers..... | 6.75 | 26.5 | 6.75 | 26.5 | 4.50 | 17.6 | 4.30 | 16.9 |
| Upholsterers..... | | | | | 4.20 | 16.5 | 4.27 | 16.7 |
| Pit sawyers..... | 6.25 | 24.5 | 6.50 | 25.5 | 4.10 | 16.1 | 4.10 | 16.1 |
| Carpenters..... | 6.25 | 24.5 | 6.50 | 25.5 | 4.23 | 16.6 | 4.39 | 17.2 |
| Joiners..... | 6.25 | 24.5 | 6.25 | 24.5 | 4.16 | 16.3 | 4.16 | 16.3 |
| Coppersmiths..... | | | | | 4.37 | 17.1 | 4.47 | 17.5 |
| Tinsmiths..... | | | | | 4.05 | 15.9 | 4.17 | 16.3 |
| Plumbers..... | 6.50 | 25.5 | 6.50 | 25.5 | 4.20 | 16.5 | 4.32 | 16.9 |
| Blacksmiths..... | 6.45 | 25.3 | 6.10 | 23.9 | 4.22 | 16.5 | 4.29 | 16.8 |
| Farriers..... | | | | | 4.00 | 15.7 | 4.00 | 15.7 |
| Stove makers..... | | | | | 4.10 | 16.1 | 4.20 | 16.5 |
| Locksmiths..... | 6.50 | 25.5 | 6.50 | 25.5 | 4.10 | 16.1 | 4.15 | 16.3 |
| Metal turners..... | 6.45 | 25.3 | 6.10 | 23.9 | 4.37 | 17.1 | 4.37 | 17.1 |
| Watchmakers..... | | | | | 4.47 | 17.5 | 4.47 | 17.5 |
| Quarrymen..... | 6.50 | 25.5 | 6.50 | 25.5 | 4.07 | 16.0 | 4.07 | 16.0 |
| Stonecutters..... | 9.25 | 36.3 | 9.25 | 36.3 | 4.67 | 18.3 | 4.67 | 18.3 |
| Masons..... | 6.50 | 25.5 | 6.50 | 25.5 | 4.42 | 17.3 | 4.42 | 17.3 |
| Navvies..... | 6.25 | 24.5 | 6.25 | 24.5 | 3.75 | 14.7 | 3.75 | 14.7 |
| Roofers..... | 6.50 | 25.5 | 6.50 | 25.5 | 4.32 | 16.9 | 4.38 | 17.2 |
| House painters..... | 6.50 | 25.5 | 6.50 | 25.5 | 4.17 | 16.3 | 4.17 | 16.3 |
| Ornamental-stone cutters..... | 7.50 | 29.4 | 7.50 | 29.4 | 5.27 | 20.7 | 5.21 | 20.4 |
| Brickmakers..... | 6.50 | 25.5 | 6.50 | 25.5 | 4.00 | 15.7 | 3.87 | 15.2 |
| Potters..... | | | | | 3.87 | 15.2 | 3.83 | 15.0 |
| Glaziers..... | 6.65 | 26.1 | 6.65 | 26.1 | 4.15 | 16.3 | 4.09 | 16.0 |
| Laborers..... | | | | | 3.18 | 12.5 | 3.15 | 12.3 |
| Average, all occupations..... | 6.64 | 26.0 | 6.61 | 25.9 | 4.08 | 16.0 | 4.08 | 16.0 |

¹ France. Ministère du Travail. Bulletin de la Statistique Générale de la France, January-March, 1932, pp. 230-242.

TABLE 1.—AVERAGE HOURLY WAGES IN FRENCH CITIES IN OCTOBER, 1930 AND 1931, BY OCCUPATION—Continued

| Occupation | Average hourly wages in— | | | | | | | |
|-------------------------------|--------------------------|------------------------|-----------------|------------------------|-------------------------|------------------------|-----------------|------------------------|
| | Paris and its environs | | | | Cities other than Paris | | | |
| | 1930 | | 1931 | | 1930 | | 1931 | |
| | French currency | United States currency | French currency | United States currency | French currency | United States currency | French currency | United States currency |
| <i>Females</i> | <i>Francs</i> | <i>Cents</i> | <i>Francs</i> | <i>Cents</i> | <i>Francs</i> | <i>Cents</i> | <i>Francs</i> | <i>Cents</i> |
| Ironers..... | | | | | 2.48 | 9.7 | 2.48 | 9.7 |
| Dressmakers..... | | | | | 2.45 | 9.6 | 2.45 | 9.6 |
| Seamstresses..... | | | | | 2.29 | 9.0 | 2.29 | 9.0 |
| Waistcoat makers..... | | | | | 2.43 | 9.5 | 2.45 | 9.6 |
| Lace makers..... | | | | | 2.47 | 9.7 | 2.49 | 9.8 |
| Embroiderers..... | | | | | 2.39 | 9.4 | 2.43 | 9.5 |
| Milliners..... | | | | | 2.46 | 9.6 | 2.38 | 9.3 |
| Average, all occupations..... | | | | | 2.42 | 9.5 | 2.42 | 9.5 |

Table 2, which shows the average weekly wages paid to female workers in dressmaking and lingerie shops and the average monthly wages paid in fashionable dressmaking shops in 1931, was furnished for the study by the employment service of the clothing industries. The rates are in all instances the same as those prevailing in 1930.

TABLE 2.—AVERAGE WEEKLY AND MONTHLY WAGES IN FRENCH DRESSMAKING SHOPS, OCTOBER, 1931

[Conversions into United States currency on basis of franc=3.92 cents]

| Occupation | October, 1931 | |
|---------------------------------|-----------------|------------------------|
| | French currency | United States currency |
| | Weekly rates | |
| Dressmaking and lingerie shops: | <i>Francs</i> | |
| First hands, female..... | 218.40 | \$8.56 |
| Second hands, female..... | 163.20 | 6.40 |
| Helpers, female..... | 115.20 | 4.52 |
| Apprentices, female..... | 52.80-82.80 | 2.07-3.25 |
| | Monthly rates | |
| Fashionable dressmaking shops: | <i>Francs</i> | |
| Skilled fitters..... | 936.00 | \$36.69 |
| Workers of medium skill..... | 748.40 | 29.34 |
| Helpers..... | 520.00 | 20.38 |
| Apprentices..... | 208.00-260.00 | 8.15-10.19 |

A comparison of wages and cost of living (Table 3) as represented by the cost of board and lodging for an unmarried worker in the same localities for which data for wages were secured shows practically no change during the year in the purchasing power of wages, since there was only a very slight reduction in the average wages and no change

in living costs. The retail price index (13 articles), however, decreased about 13 per cent from November, 1930, to November, 1931.

TABLE 3.—AVERAGE DAILY WAGES AND COST OF BOARD AND LODGING IN FRANCE, OCTOBER, 1930 AND 1931, AND INDEX NUMBERS THEREOF AND OF RETAIL PRICES IN NOVEMBER, 1930 AND 1931

[Conversions into United States currency on basis of franc=3.92 cents]

| Item | October, 1930 | | October, 1931 | | Index numbers (1911=100) | |
|--|-----------------|------------------------|-----------------|------------------------|--------------------------|---------------|
| | French currency | United States currency | French currency | United States currency | October, 1930 | October, 1931 |
| Daily wages: | <i>Francs</i> | | <i>Francs</i> | | | |
| Men..... | 33.66 | \$1.32 | 33.60 | \$1.32 | 730 | 729 |
| Women..... | 19.79 | .78 | 19.73 | .77 | 864 | 862 |
| Cost of board and lodging per month..... | 537.00 | 21.05 | 537.00 | 21.05 | 767 | 767 |
| Retail price of 13 articles ¹ | | | | | 641 | 558 |

¹ For November, 1930 and 1931, respectively.

General Survey of Wages in Germany in 1931¹

WAGES in most German industries are fixed by agreement between employees and employers, or, if they can not agree, by Government arbitrators. The wage rates thus fixed are very detailed, there being in most cases separate rates according to occupation, sex, marital condition, and age; the rates also vary from place to place, generally according to the relative cost of living. The wage rates for various industries hereafter presented are generally for adult workers. The agreement wage rates do not necessarily or even in the majority of cases represent actual earnings. In most instances wages are higher than those quoted, which are for the most part basic hourly wages, i. e., minimum wages which a worker must receive.

The emergency decree of December 8, 1931, provided that wages should be reduced to the level of the scale of wages of January, 1927.² There was a proviso that, in cases in which the increase since January, 1927, amounted to more than 10 per cent, the reduction should amount to only 10 per cent, except that in case there had been no reduction since July 1, 1931, the reduction should amount to 15 per cent. Instances of such reductions in specific industries are noted hereafter.

Hours of labor.—The working time specified in wage agreements is generally 8 hours a day and 48 hours a week, though in some instances, noted hereafter, the hours are slightly different. In some industries having a 48-hour week the daily hours may be distributed as desired. Working hours may be reduced by the industry, and it is said that on account of the depression the 5-day week or the 6-hour day has been introduced by many manufacturers.

Payments supplementary to wages.—Supplements to wages, such as family allowances, housing, board, production bonuses, allowances in kind, etc., are made in some industries. Instances thereof, where reported, are noted under the separate industries.

Deductions from wages.—Deductions from wages for social insurance are, in general, provided for by national laws, which provide for insurance against sickness, disability and old age, and unemployment. The contributions for sickness insurance average about 6 per cent of the worker's wages or earnings, two-thirds being deducted from the worker's wages and one-third being paid by the employer. The contributions for invalidity and old-age insurance, 50 per cent of which

¹ Except where otherwise noted, this article was prepared from reports from American consular officers in Germany, as follows: Maurice W. Altaffer, Dresden (Nov. 7, 1931); Robert R. Bradford, Breslau (Oct. 16, 1931); Ralph C. Busser, Leipzig (Feb. 6, 1932); Raymond H. Geist, Berlin (Nov. 23, 1931); C. W. Gray, Berlin (Nov. 17, 1931); Charles M. Hathaway, jr., Munich (Nov. 16, 1931); W. A. Leonard, Bremen (Oct. 19, 1931); Robert D. Longyear, Munich (Oct. 16, 1931); Donn P. Medalie, Stuttgart (Oct. 15, 1931); Lester L. Schnare, Hamburg (Oct. 8, 1931); James H. Wright, Cologne (Oct. 14, 1931); and Lloyd D. Yates, Hamburg (Jan. 22, 1932).

² For a summary of the provisions of this decree see Labor Review for March, 1932 (pp. 588-593).

is deducted from the worker's wages and 50 per cent paid by the employer, are based on the weekly wages, as follows:

| Weekly wages: | Contribution |
|---------------------|------------------------------------|
| Up to 6 marks----- | 0.30 mark (7.1 cents) ^a |
| 6 to 12 marks----- | 0.60 mark (14.3 cents) |
| 12 to 18 marks----- | 0.90 mark (21.4 cents) |
| 18 to 24 marks----- | 1.20 marks (28.6 cents) |
| 24 to 30 marks----- | 1.50 marks (35.7 cents) |
| 30 to 36 marks----- | 1.80 marks (42.8 cents) |
| Over 36 marks----- | 2.00 marks (47.6 cents) |

The contribution for the unemployment insurance is at the rate of 6½ per cent of the gross earnings, half being deducted from the wages of the worker and half being paid by the employer.

Manufacturing Industries

Artificial-Flower Industry, Dresden

THE Dresden district produces 67.1 per cent of the total German output of artificial flowers. The industry is predominantly of the household type. In 1925 there were 3,606 plants with 10,734 workers, while in 1929, the last year for which complete statistics are available, there were only 172 plants with 5,400 workers, many small household industries having apparently been abandoned, leaving only the stronger enterprises in the field. There is no general wage agreement between the various employers and their workers at the present time, the one formerly in effect having been abrogated. This enables each employer to enter into individual contracts with his workers.

Male and female workers over 21 years of age receive an actual gross wage of 65 pfennigs (15.5 cents) and 42 pfennigs (10.0 cents) per hour, respectively. Piecework earnings are from 12½ to 15 per cent higher than those for time work.

For overtime work between the forty-ninth and fifty-third hour, inclusive, 20 per cent over the regular wage rate is paid. Actually, however, the matter of overtime does not arise, because night shifts are employed when there is urgent work to be done.

Boot and Shoe Industry ³

An investigation of the actual earnings of adult workers in the boot and shoe industry was made by the Federal Statistical Office of Germany in March, 1929. Table 1 shows the average actual hourly and weekly earnings as shown by that study and also the wages established by agreements in effect at that time. The locality groups shown are those established by the collective agreements for wage-making purposes, the localities being classified on the basis of the cost of living.

^a Conversions into United States currency on basis of mark = 23.8 cents; pfennig = 0.238 cent.

³ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, pp. 277, 292.

TABLE 1.—AGREEMENT WAGE RATES AND ACTUAL EARNINGS AND HOURS IN THE BOOT AND SHOE INDUSTRY OF GERMANY, MARCH, 1929

[Conversions into United States currency on basis of mark=23.3 cents; pfennig=0.238 cent]

| Locality groups, and sex of workers | Number of workers | Average working hours per week ¹ | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings ² | |
|-------------------------------------|-------------------|---|-------------------------|------------------------|---|------------------------|--------------------------------------|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| Group I: | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Male workers— | | | | | | | | |
| Time work | 4,127 | 43.3 | 105.2 | 25.0 | 87.0 | 20.7 | 45.73 | \$10.88 |
| Piece work | 8,220 | 42.8 | 124.4 | 29.6 | 97.9 | 23.3 | 53.29 | 12.68 |
| Female workers— | | | | | | | | |
| Time work | 3,568 | 43.1 | 71.9 | 17.1 | 65.3 | 15.5 | 31.13 | 7.41 |
| Piece work | 7,927 | 42.1 | 83.1 | 19.8 | 73.4 | 17.5 | 35.00 | 8.33 |
| Group II: | | | | | | | | |
| Male workers— | | | | | | | | |
| Time work | 1,630 | 44.8 | 93.4 | 22.2 | 83.5 | 19.9 | 41.95 | 9.98 |
| Piece work | 2,923 | 43.9 | 110.5 | 26.3 | 94.0 | 22.4 | 48.56 | 11.56 |
| Female workers— | | | | | | | | |
| Time work | 1,145 | 42.9 | 67.4 | 16.0 | 62.6 | 14.9 | 29.05 | 6.91 |
| Piece work | 2,322 | 44.5 | 75.9 | 18.1 | 70.5 | 16.8 | 33.82 | 8.05 |
| Group III: | | | | | | | | |
| Male workers— | | | | | | | | |
| Time work | 2,771 | 42.4 | 90.8 | 21.6 | 80.0 | 19.0 | 38.59 | 9.18 |
| Piece work | 3,717 | 41.1 | 101.7 | 24.2 | 90.1 | 21.4 | 41.85 | 9.96 |
| Female workers— | | | | | | | | |
| Time work | 1,552 | 43.2 | 63.6 | 15.1 | 60.0 | 14.3 | 27.61 | 6.57 |
| Piece work | 2,694 | 41.9 | 70.9 | 16.9 | 67.5 | 16.1 | 29.71 | 7.07 |
| Group IV: | | | | | | | | |
| Male workers— | | | | | | | | |
| Time work | 396 | 38.9 | 81.8 | 19.5 | 76.6 | 18.2 | 31.97 | 7.61 |
| Piece work | 517 | 40.0 | 93.5 | 22.3 | 86.1 | 20.5 | 37.43 | 8.91 |
| Female workers— | | | | | | | | |
| Time work | 162 | 37.6 | 58.0 | 13.8 | 57.4 | 13.7 | 21.89 | 5.21 |
| Piece work | 378 | 40.0 | 67.3 | 16.0 | 64.6 | 15.4 | 27.03 | 6.43 |
| Group V: | | | | | | | | |
| Male workers— | | | | | | | | |
| Time work | 167 | 42.7 | 82.3 | 19.6 | 73.1 | 17.4 | 35.30 | 8.40 |
| Piece work | 440 | 40.0 | 85.0 | 20.2 | 82.2 | 19.6 | 34.13 | 8.12 |
| Female workers— | | | | | | | | |
| Time work | 39 | 40.5 | 58.8 | 14.0 | 54.8 | 13.0 | 23.84 | 5.67 |
| Piece work | 224 | 39.8 | 61.4 | 14.6 | 61.7 | 14.7 | 24.46 | 5.82 |

¹ Including overtime.² Including overtime and family allowances.

Average wage rates, fixed by collective agreements, as of April 1 of the years 1929, 1930, and 1931, are given in Table 2.

TABLE 2.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE BOOT AND SHOE INDUSTRY OF GERMANY, APRIL 1, 1929, 1930, AND 1931

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Locality groups and sex of workers | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|------------------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| Group I: | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Male workers | 93.96 | 22.4 | 102.60 | 24.4 | 97.20 | 23.1 |
| Female workers | 70.61 | 16.8 | 77.10 | 18.3 | 73.05 | 17.4 |
| Group II: | | | | | | |
| Male workers | 89.77 | 21.4 | 98.03 | 23.3 | 92.87 | 22.1 |
| Female workers | 67.31 | 16.0 | 73.50 | 17.5 | 69.64 | 16.6 |
| Group III: | | | | | | |
| Male workers | 85.75 | 20.4 | 93.63 | 22.3 | 88.70 | 21.1 |
| Female workers | 64.42 | 15.3 | 70.35 | 16.7 | 66.64 | 15.9 |
| Group IV: | | | | | | |
| Male workers | 81.53 | 19.4 | 89.09 | 21.2 | 84.40 | 20.1 |
| Female workers | 61.66 | 14.7 | 67.33 | 16.0 | 63.79 | 15.2 |
| Group V: | | | | | | |
| Male workers | 78.46 | 18.7 | 85.68 | 20.4 | 81.17 | 19.3 |
| Female workers | 59.39 | 14.1 | 64.86 | 15.4 | 61.44 | 14.6 |
| Average, all groups: | | | | | | |
| Male workers | 90.05 | 21.4 | 98.33 | 23.4 | 93.16 | 22.2 |
| Female workers | 68.17 | 16.2 | 74.44 | 17.7 | 70.52 | 16.8 |

Under the national emergency decree of December 8, 1931, wage rates in this industry in central Germany were reduced 12½ per cent, effective January 1, 1932.

Brick Industry, Cologne District

Both clay brick and fire brick are made in the Cologne district.

Clay brick.—The basic hourly wage rates paid to adult workers are shown below. Younger workers are paid lower rates, according to age groups. Wage rates for piecework must be fixed so that the earnings are at least 25 per cent over the basic wage rate.

| | Pfennigs |
|--|-----------------|
| Skilled workers (foremen, press masters (<i>pressmeister</i>), molders, burners, carters, kiln setters, clamp setters, sorters, engine men, stockers, and hand workers)..... | 88 (20.9 cents) |
| Semiskilled workers (workers in clay, slate, or loam pit, rolling and crushing mill operators, wagon fillers, packers, cutters, and banks men (<i>Abnehmer</i>))..... | 83 (19.8 cents) |
| Other workers (haulers)..... | 76 (18.1 cents) |

Living quarters are furnished free of charge to itinerant workers.

Lost time due to climatic conditions or similar difficulties may be made up by overtime without extra pay. For other overtime work, wage rates must be agreed upon. Night and Sunday work, except regular shift work, is paid for at the rate of 50 per cent over the basic rate. Work on Easter, Whitsuntide, and Christmas is paid for at double rates.

Vacation with pay is granted as follows: For regular employees, after 1 year of continuous employment, leave of 3 days is given; after 2 years, 4 days; after 3 years, 5 days; after 4 years, 6 days; and after 5 or more years, 8 days. For seasonal workers, after 6 months of seasonal work, the period of leave is 2 days; after 7 months, 3 days; after 9 months, 4 days; and after 12 months, 5 days.

Fire brick.—The following are the basic wage rates per hour paid to adult workers, younger workers being paid lower rates according to age groups:

| | Pfennigs |
|---|-----------------|
| Unskilled laborers..... | 72 (17.1 cents) |
| Semiskilled workers (silica mixers, chamotte-brick formers, painters, burners, brick setters, loaders, mixers, and shunters)..... | 74 (17.6 cents) |
| Skilled workers..... | 85 (20.2 cents) |
| Female workers..... | 52 (12.4 cents) |

Burners stoking for daily wages receive a 10 per cent bonus for each good batch.

Piecework hourly earnings must be at least 15 per cent in excess of the basic hourly wage. Married workers are entitled to a family allowance of 2 pfennigs (0.48 cent) per hour for wife and each child under 14 years of age.

The regular working time is 48 hours per week for all employees except burners, whose working time is 60 hours per week.

For the first 4 hours of overtime per week the wage is increased by 20 per cent, and for all time thereafter by 25 per cent. Sunday and holiday work is paid for at the rate of 50 per cent over the basic wage. Night-shift work is paid for at regular rates, but irregular night work within the 48-hour working week calls for 15 per cent over the basic wage. Regular Sunday shift work is paid for at the rate of time and a quarter, but if the working week exceeds 60 hours by reason of the Sunday work, time and a half is paid. Janitors, watchmen, tool

keepers, stokers, machinists, and engine drivers are not entitled to overtime pay, but their wages are adjusted for necessary overtime work. For work on Easter, Whitsuntide, and Christmas double time is paid.

Leave of absence with pay is granted to all workers as follows: After 1 year of service, 3 days; after 2 years, 4 days; after 3 years, 5 days; after 4 years, 6 days; after 6 years, 7 days; after 8 years, 8 days; and after 10 years, 9 days.

Building Trades ⁴

The Federal Statistical Office investigation, already referred to, showed the following average actual hourly and daily earnings, union rates, and hours of labor of building-trades workers in August, 1929:

TABLE 3.—AVERAGE ACTUAL HOURLY AND DAILY EARNINGS IN THE BUILDING INDUSTRY OF GERMANY, AUGUST, 1929

[Conversions into United States currency on basis of mark = 23.8 cents; pfennig = 0.238 cent]

| Occupation | Number of workers | Average working hours per day | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average daily earnings | |
|--------------------------------|-------------------|-------------------------------|-------------------------|------------------------|---|------------------------|------------------------|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | | | Pfennigs | Cents | Pfennigs | Cents | Marks | |
| Masons..... | 69,239 | 8.00 | 145.5 | 34.6 | 130.4 | 31.0 | 11.72 | \$2.79 |
| Carpenters..... | 25,457 | 8.06 | 138.6 | 33.0 | 132.8 | 31.6 | 11.27 | 2.68 |
| Concrete workers, skilled..... | 3,439 | 8.58 | 143.6 | 34.2 | 136.5 | 32.5 | 12.58 | 2.99 |
| Mixers, concrete works..... | 2,823 | 8.33 | 149.7 | 35.6 | 139.1 | 33.1 | 12.66 | 3.01 |
| Concrete workers..... | 1,817 | 8.52 | 131.1 | 31.2 | 125.1 | 29.8 | 11.38 | 2.71 |
| Building helpers..... | 60,968 | 8.18 | 113.4 | 27.0 | 110.0 | 26.2 | 9.38 | 2.23 |
| Underground workers..... | 41,275 | 8.51 | 95.5 | 22.7 | 91.5 | 21.8 | 8.26 | 1.97 |
| Painters' helpers..... | 21,038 | 8.07 | 133.6 | 31.8 | 131.5 | 31.3 | 10.82 | 2.58 |
| Roofers..... | 2,048 | 8.08 | 144.2 | 34.3 | 142.8 | 34.0 | 11.68 | 2.78 |

Average hourly wage rates of masons and building-trades helpers under agreements in effect on April 1, 1929, 1930, and 1931 are shown in Table 4.

TABLE 4.—AVERAGE AGREEMENT HOURLY WAGE RATES OF MASONS AND HELPERS IN GERMANY, APRIL 1, 1929, 1930, AND 1931

[Conversions into United States currency on basis of pfennig = 0.238 cent]

| Date | Masons | | Building helpers | |
|-------------------|-----------------|------------------------|------------------|------------------------|
| | German currency | United States currency | German currency | United States currency |
| | Pfennigs | Cents | Pfennigs | Cents |
| Apr. 1, 1929..... | 119.5 | 28.4 | 94.0 | 22.4 |
| Apr. 1, 1930..... | 125.2 | 29.8 | 98.5 | 23.4 |
| Apr. 1, 1931..... | 118.8 | 28.3 | 92.7 | 22.1 |

⁴ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, pp. 278, 286

Cement Industry, Westphalia

Wages in this industry are paid according to the age and sex of the worker and the type of the work to be performed. The following are the basic hourly wages paid to adult cement workers, younger workers being paid lower wage rates:

| | Pfennigs |
|--|------------------|
| Skilled workers..... | 85 (20.2 cents). |
| Semiskilled workers: | |
| Machinists, firemen, locomotive drivers, dredge operators, dredge firemen, and electricians..... | 77 (18.3 cents). |
| Quarry workers, oven workers, packers and burners, millers, coal unloaders, crushers working with shovel..... | 75 (18 cents). |
| Greasers, pressers, drum heaters, unloaders and rope railway workers, crushers not working with shovel, helpers in blacksmith and mechanics' shops, and other unskilled workers..... | 73 (17.4 cents). |

Female workers receive 75 per cent of the basic wage rates for male workers of their respective age and class of work.

Overtime is paid for at 25 per cent over the basic rate, and Sunday and holiday work at 50 per cent more. Regular Sunday shift work calls for 25 per cent extra, unless Sunday work causes the total for the week to exceed 48 hours, when all time over 48 hours is paid for at the rate of 50 per cent extra. For work on Christmas, Easter, and Whitsuntide double time is paid. Night work does not call for an increased wage when part of a regular shift.

All workers over 17 years of age are entitled to leave with pay according to the following schedule: After 1 year of service, 4 days; after 2 years, 4 days; after 3 years, 5 days; after 4 years, 6 days; after 5 years, 7 days; after 6 years, 8 days; and after 7 years, 9 days.

Ceramic Industry

Average hourly wage rates under collective agreements in effect in the fine ceramic industry on April 1, 1929, 1930, and 1931 are shown in Table 5.

TABLE 5.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE FINE CERAMIC INDUSTRY OF GERMANY, APRIL 1, 1929, 1930, AND 1931¹

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Class of workers | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|------------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | Pfennigs | Cents | Pfennigs | Cents | Pfennigs | Cents |
| Skilled workers, male..... | 82.3 | 19.6 | 87.4 | 20.8 | 82.1 | 19.5 |
| Skilled workers, female..... | 50.0 | 11.9 | 54.0 | 12.9 | 50.4 | 12.0 |
| Helpers, male..... | 68.1 | 16.2 | 72.5 | 17.3 | 68.2 | 16.2 |
| Helpers, female..... | 42.2 | 10.0 | 44.5 | 10.6 | 42.0 | 10.0 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 290.

In Upper and Lower Silesia an increase of 25 per cent over the regular rate is paid for time worked in excess of 48 hours, and for Sunday and holiday work an increase of 50 per cent.

All workers in Upper and Lower Silesia are granted, after 1 year's employment, a vacation of 3 days with full pay and 1 additional day for each year of service up to eight years. After 10 years' service, 10 days and after 15 years' service 12 days vacation is allowed.

Chemical Industry

The actual hourly and weekly earnings, in June, 1931, of adult workers in the chemical industry are shown in Table 6. The agreement wage rates effective at that time are also shown.

TABLE 6.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE CHEMICAL INDUSTRY OF GERMANY, BY OCCUPATION AND SEX, JUNE, 1931¹

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

| Branch of industry, occupation, and sex | Number of workers | Average work- ing hours per week | Average hourly earnings includ- ing supplement- ary payments | | Agreement hour- ly wage or wage on piece-rate basis | | Average week- ly earnings | |
|--|----------------------|---|---|-----------------------------------|--|-----------------------------------|------------------------------|-----------------------------------|
| | | | German currency | United States cur- rency | German currency | United States cur- rency | Ger- man cur- rency | United States cur- rency |
| <i>Dyes</i> | | | | | | | | |
| Skilled workers: | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Time work..... | 529 | 42.8 | 108.2 | 25.8 | 96.8 | 23.0 | 46.30 | \$11.02 |
| Bonus work..... | 1,096 | 40.3 | 121.7 | 29.0 | 98.1 | 23.3 | 49.00 | 11.66 |
| Piece work..... | 2,926 | 39.6 | 130.4 | 31.0 | 108.1 | 25.7 | 51.65 | 12.29 |
| Factory workers, male: | | | | | | | | |
| Time work..... | 2,110 | 42.8 | 88.4 | 21.0 | 79.5 | 18.9 | 37.86 | 9.11 |
| Bonus work..... | 5,741 | 40.8 | 103.5 | 24.6 | 79.9 | 19.0 | 42.17 | 10.04 |
| Piece work..... | 1,182 | 41.0 | 107.7 | 25.6 | 89.8 | 21.4 | 44.12 | 10.50 |
| Factory workers, female: | | | | | | | | |
| Time work..... | 185 | 43.3 | 61.7 | 14.7 | 51.3 | 12.2 | 26.71 | 6.36 |
| Bonus work..... | 192 | 46.7 | 60.3 | 14.4 | 51.9 | 12.4 | 28.16 | 6.70 |
| Piece work..... | 409 | 41.2 | 66.2 | 15.8 | 59.6 | 14.2 | 27.24 | 6.48 |
| <i>Nitrogen and artificial fertilizers</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work..... | 711 | 44.9 | 105.4 | 25.1 | 93.7 | 22.3 | 47.35 | 11.27 |
| Bonus work..... | 2,476 | 39.3 | 136.4 | 32.5 | 101.2 | 24.1 | 53.65 | 12.77 |
| Piece work..... | 1,446 | 41.0 | 135.6 | 32.3 | 106.7 | 25.4 | 55.57 | 13.23 |
| Factory workers, male: | | | | | | | | |
| Time work..... | 2,556 | 45.2 | 89.4 | 21.3 | 76.6 | 18.2 | 40.44 | 9.62 |
| Bonus work..... | 5,722 | 38.9 | 108.4 | 25.8 | 81.3 | 19.3 | 42.21 | 10.05 |
| Piece work..... | 1,599 | 42.1 | 118.5 | 28.2 | 90.2 | 21.5 | 49.91 | 11.88 |
| <i>Tar distillation</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work..... | 412 | 45.3 | 98.0 | 23.3 | 90.4 | 21.5 | 44.34 | 10.55 |
| Piece work..... | 94 | 40.8 | 112.8 | 26.8 | 102.0 | 24.3 | 46.05 | 10.96 |
| Factory workers, male: | | | | | | | | |
| Time work..... | 1,519 | 44.9 | 85.7 | 20.4 | 75.8 | 18.0 | 38.48 | 9.16 |
| Piece work..... | 104 | 42.6 | 113.1 | 26.9 | 82.6 | 19.7 | 48.20 | 11.47 |
| Factory workers, female: Time work..... | 137 | 40.6 | 46.6 | 11.1 | 47.1 | 11.2 | 18.94 | 4.51 |
| <i>Drugs</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work..... | 1,260 | 43.9 | 111.4 | 26.5 | 95.2 | 22.7 | 48.90 | 11.64 |
| Bonus work..... | 112 | 43.3 | 117.5 | 28.0 | 94.2 | 22.4 | 50.83 | 12.10 |
| Piece work..... | 169 | 43.6 | 112.4 | 26.8 | 107.1 | 25.5 | 48.97 | 11.65 |
| Factory workers, male: | | | | | | | | |
| Time work..... | 3,306 | 43.5 | 89.7 | 21.3 | 79.6 | 18.9 | 39.00 | 9.28 |
| Bonus work..... | 1,134 | 44.8 | 100.0 | 23.8 | 79.3 | 18.9 | 44.78 | 10.66 |
| Piece work..... | 132 | 48.4 | 107.5 | 25.6 | 96.8 | 23.0 | 52.07 | 12.39 |
| Factory workers, female: | | | | | | | | |
| Time work..... | 723 | 44.0 | 59.4 | 14.1 | 55.9 | 13.3 | 26.12 | 6.21 |
| Bonus work..... | 169 | 43.6 | 66.7 | 15.9 | 55.2 | 13.1 | 29.07 | 6.92 |
| Piece work..... | 467 | 44.7 | 73.3 | 17.4 | 66.6 | 15.9 | 32.78 | 7.80 |

¹ Data are from Germany, Statistisches Reichsamt, Wirtschaft und Statistik, Mar. 2, 1932, pp. 177-181.

² Time work, including a production bonus.

TABLE 6.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE CHEMICAL INDUSTRY OF GERMANY, BY OCCUPATION AND SEX, JUNE, 1931—Continued

| Branch of industry, occupation, and sex | Number of workers | Average work- ing hours per week | Average hourly earnings includ- ing supplement- ary payments | | Agreement hour- ly wage or wage on piece-rate basis | | Average week- ly earnings | |
|--|----------------------|---|---|-----------------------------------|--|-----------------------------------|------------------------------|-----------------------------------|
| | | | German currency | United States cur- rency | German currency | United States cur- rency | Ger- man cur- rency | United States cur- rency |
| <i>Photochemicals</i> | | | | | | | | |
| Skilled workers: | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Time work | 180 | 42.4 | 120.7 | 28.7 | 104.9 | 25.0 | 51.23 | \$12.19 |
| Bonus work | 375 | 40.8 | 131.2 | 31.2 | 100.7 | 24.0 | 53.54 | 12.74 |
| Factory workers, male: | | | | | | | | |
| Time work | 575 | 45.7 | 89.6 | 21.3 | 83.0 | 19.8 | 40.96 | 9.75 |
| Bonus work | 707 | 40.3 | 104.1 | 24.8 | 81.2 | 19.3 | 41.95 | 9.98 |
| Factory workers, female: | | | | | | | | |
| Time work | 768 | 44.2 | 60.4 | 14.4 | 54.4 | 12.9 | 26.68 | 6.35 |
| Bonus work | 827 | 41.9 | 67.0 | 15.9 | 54.3 | 12.9 | 28.08 | 6.68 |
| Piece work | 62 | 43.2 | 67.4 | 16.0 | 61.4 | 14.6 | 29.08 | 6.92 |
| <i>Essential oils</i> | | | | | | | | |
| Skilled workers: Time work | 87 | 41.3 | 117.2 | 27.9 | 90.6 | 21.6 | 48.38 | 11.51 |
| Factory workers, male: Time work | 314 | 42.1 | 90.2 | 21.5 | 80.7 | 19.2 | 38.01 | 9.06 |
| Factory workers, female: Time work | 71 | 47.4 | 53.5 | 12.7 | 51.9 | 12.4 | 25.35 | 6.03 |
| <i>Artificial silk (rayon)</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 320 | 46.4 | 110.3 | 26.3 | 96.6 | 23.0 | 51.20 | 12.19 |
| Bonus work | 396 | 46.4 | 119.4 | 28.4 | 94.2 | 22.4 | 55.37 | 13.18 |
| Piece work | 298 | 40.6 | 112.3 | 26.7 | 102.2 | 24.3 | 45.64 | 10.86 |
| Factory workers, male: | | | | | | | | |
| Time work | 1,915 | 47.3 | 87.1 | 20.7 | 76.7 | 18.3 | 41.18 | 9.80 |
| Bonus work | 2,426 | 45.9 | 95.3 | 22.7 | 76.0 | 18.1 | 43.74 | 10.41 |
| Piece work | 76 | 40.7 | 96.5 | 23.0 | 86.9 | 20.7 | 39.25 | 9.34 |
| Factory workers, female: | | | | | | | | |
| Time work | 504 | 43.8 | 56.0 | 13.3 | 52.8 | 12.6 | 24.53 | 5.84 |
| Bonus work | 2,373 | 43.8 | 60.3 | 14.4 | 48.9 | 11.6 | 26.43 | 6.29 |
| Piece work | 2,276 | 43.2 | 64.5 | 15.4 | 58.3 | 13.9 | 27.86 | 6.63 |
| <i>Explosives</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 261 | 43.5 | 93.8 | 22.3 | 85.8 | 20.4 | 40.83 | 9.72 |
| Bonus work | 304 | 41.1 | 121.1 | 28.8 | 98.3 | 23.4 | 49.76 | 11.84 |
| Piece work | 24 | 46.5 | 123.0 | 29.3 | 107.5 | 25.6 | 57.13 | 13.60 |
| Factory workers, male: | | | | | | | | |
| Time work | 1,003 | 39.7 | 78.4 | 18.7 | 71.4 | 17.0 | 31.14 | 7.41 |
| Bonus work | 776 | 45.7 | 107.0 | 25.5 | 78.9 | 18.8 | 48.89 | 11.64 |
| Piece work | 211 | 32.4 | 115.4 | 27.5 | 86.8 | 20.7 | 37.40 | 8.90 |
| Factory workers, female: | | | | | | | | |
| Time work | 618 | 41.0 | 51.2 | 12.2 | 49.4 | 11.8 | 21.01 | 5.00 |
| Bonus work | 377 | 42.2 | 64.9 | 15.4 | 50.6 | 12.0 | 27.41 | 6.52 |
| Piece work | 32 | 39.6 | 63.2 | 15.0 | 57.7 | 13.7 | 25.00 | 5.95 |

Average agreement hourly wage rates in the industry in effect April 1, 1929, 1930, and 1931 are shown in Table 7.

TABLE 7.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE GERMAN CHEMICAL INDUSTRY, APRIL 1, 1929, 1930, AND 1931¹

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Class of workers | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Skilled workers | 102.3 | 24.3 | 107.5 | 25.6 | 106.5 | 25.3 |
| Male workers | 82.2 | 19.6 | 86.4 | 20.6 | 85.3 | 20.3 |
| Female workers | 55.2 | 13.1 | 57.9 | 13.8 | 56.9 | 13.5 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 285.

While the normal working hours in the chemical industry are 8 per day or 48 per week, in some districts—Cologne, for instance—in case of necessity the hours can be increased to 9 per day or 54 per week.

The following practices as regards overtime, vacations, etc., in effect in Cologne, seem to be typical of this industry: For overtime, 25 per cent extra compensation; for Sunday work, 50 per cent extra; and for work on Christmas, Easter, and the Pentecostal holidays, 100 per cent extra. Workers are entitled to leave of absence with pay as follows: After 1 and 2 years of service, 4 days, and 1 additional day for each succeeding year of service, up to a maximum of 12 days.

As illustrative of family allowances supplementary to the wages paid in the industry, the following are presented: Berlin, 80 pfennigs (19 cents) for each dependent; Cologne, 114 pfennigs (27.1 cents) for wife and each child; Rhine Province, 74 to 103 pfennigs (17.6 to 24.5 cents) for wife and each child; Wuppertal, 70 pfennigs (16.7 cents) for wife and each dependent child.

Chocolate Industry, Dresden District

In 1930 the chocolate industry of the Dresden district included 120 factories and employed some 8,200 workers. This was 18.6 per cent of the entire German chocolate industry. All of the large chocolate factories in the district are located in Dresden itself, the city being known as the chief center of the industry in Germany.

From 1925 to 1928 wage rates increased by about 30.3 per cent. In 1929 they increased a further 4 per cent, but from January 1 to November, 1931, they decreased 5 per cent, making the rates in November, 1931, about 1 per cent lower than in 1928.

According to data furnished by the largest local chocolate manufacturer average full-time wages for the principal class of adult workers in the industry are as follows:

TABLE 8.—WAGE RATES IN THE CHOCOLATE INDUSTRY OF DRESDEN, GERMANY
NOVEMBER, 1931

[Conversions into United States currency on basis of mark=23.8 cents]

| Class of workers | Basic rates per— | | | | Piecework earnings per— | | | |
|----------------------|------------------------------|-----------------------------------|------------------------------|-----------------------------------|------------------------------|-----------------------------------|------------------------------|-----------------------------------|
| | Hour | | 48-hour week | | Hour | | 48-hour week | |
| | Ger- man cur- rency | United States cur- rency | Ger- man cur- rency | United States cur- rency | Ger- man cur- rency | United States cur- rency | Ger- man cur- rency | United States cur- rency |
| | Marks | | Marks | | Marks | | Marks | |
| Skilled workers..... | 1.00 | \$0.24 | 47.76 | \$11.37 | 1.22 | \$0.29 | 58.56 | \$13.94 |
| Helpers..... | .86 | .20 | 41.04 | 9.77 | 1.05 | .25 | 50.40 | 12.00 |
| Female workers..... | .56 | .13 | 26.64 | 6.34 | .67 | .16 | 32.16 | 7.65 |

Due to the reduced working schedule made necessary by slack business the above can not be considered the actual earnings of workers at the present time. During 1931 up to the middle of September the plant to which these statistics apply furnished, on the average, 37 hours' employment per week for its employees.

Rates for piecework are fixed so that hourly earnings are at least 15 per cent more than the basic wages per hour. Piece rates are the same for workers of all ages.

Overtime is paid for at the rate of 20 per cent additional per hour. For Sunday, holiday, and night work employees receive 50 per cent additional per hour.

Cigars, Tobacco, etc., Industry

Smoking-tobacco and snuff works.—The basic hourly wage rates paid to skilled and unskilled workers in smoking-tobacco and snuff works in the district of Bavaria are shown in the following table:

TABLE 9.—BASIC HOURLY WAGE RATES IN SMOKING-TOBACCO AND SNUFF WORKS IN BAVARIA, GERMANY

[Conversions into United States currency on basis of pfennig = 0.238 cent]

| Locality group | Skilled workers, male | | Unskilled workers, female | |
|----------------|-----------------------|------------------------|---------------------------|------------------------|
| | German currency | United States currency | German currency | United States currency |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Group I..... | 84.1 | 20.0 | 58.4 | 13.9 |
| Group II..... | 74.7 | 17.8 | 51.9 | 12.4 |
| Group III..... | 71.6 | 17.0 | 49.7 | 11.8 |
| Group IV..... | 68.5 | 16.3 | 47.6 | 11.3 |

Cigar manufacture.—There is a considerable manufacture of cigars in the Hamburg district, particularly in the free port of Hamburg where the cigars produced can be exported without the high import duty and monopoly taxes on tobacco.

The wage agreement in effect provides for four geographical classes, in which wages vary apparently according to the cost of living in the different localities. The basic hourly wage rates for adult workers provided in the agreement are as follows, younger workers being paid lower rates according to age groups:

TABLE 10.—BASIC HOURLY WAGE RATES IN THE CIGAR INDUSTRY OF HAMBURG, GERMANY

[Conversions into United States currency on basis of pfennig = 0.238 cent]

| Locality class | Male workers | | | | Female workers | |
|----------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | Single | | Married | | German currency | United States currency |
| | German currency | United States currency | German currency | United States currency | | |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Class I..... | 59.0 | 14.0 | 67.0 | 15.9 | 42.5 | 10.1 |
| Class II..... | 66.5 | 15.8 | 72.0 | 17.1 | 45.5 | 10.8 |
| Class III..... | 72.5 | 17.3 | 77.5 | 18.4 | 49.5 | 11.8 |
| Class IV..... | 76.0 | 18.1 | 84.0 | 20.0 | 53.0 | 12.6 |

Additional wages are paid for length of service at the rate of 2 pfennigs per hour after 1 year, 4 pfennigs after 2 years, 5.5 pfennigs after 3 years, 7.5 pfennigs after 5 years, and 9.5 pfennigs after 10 years.

Mothers having children under 14 years of age and female workers having disabled husbands receive an additional payment of 5 per cent of the agreement rates.

A large amount of piecework—in fact, the greater part of the work—is done in the homes of the workers, and payment therefor is according to kind of tobacco, style, shape, and size of cigars, etc. It is practically impossible to determine how the payments for such piecework compare with the hourly wage rates given above.

No vacation is provided for in the wage agreement.

Cigarette manufacture.—The basic wage rates for adult workers in effect in the Hamburg and Dresden districts are as follows, younger workers being paid lower rates according to age groups:

TABLE 11.—BASIC HOURLY AND WEEKLY WAGE RATES IN THE CIGARETTE INDUSTRY OF GERMANY

[Conversions into United States currency on basis of mark = 23.8 cents]

| Occupation and sex of worker | Wage rates per week | | Wage rates per hour | |
|--|---------------------|------------------------|---------------------|------------------------|
| | German currency | United States currency | German currency | United States currency |
| <i>Hamburg district</i> | | | | |
| Males: | Marks | | Marks | Cents |
| Machine operators..... | 85. 85-90. 95 | \$20. 43-\$21. 65 | 2. 02-2. 14 | 48. 1-50. 9 |
| Skilled workers and bookbinders..... | 74. 80 | 17. 80 | 1. 76 | 41. 9 |
| Tobacco cutters..... | 64. 60 | 15. 37 | 1. 52 | 36. 2 |
| Knife sharpeners..... | 58. 65 | 13. 96 | 1. 38 | 32. 8 |
| Helpers..... | 54. 40 | 12. 95 | 1. 28 | 30. 5 |
| Females: | | | | |
| Workers in tobacco-working sections and machine shops..... | 34. 85 | 8. 29 | . 82 | 19. 5 |
| Assembling and packing-machine operators..... | 37. 40 | 8. 90 | . 88 | 20. 9 |
| Other workers..... | 33. 15 | 7. 89 | . 78 | 18. 6 |
| <i>Dresden district</i> | | | | |
| Males: | | | | |
| Machine operators..... | 79. 90-90. 95 | 19. 02-21. 65 | 1. 88-2. 14 | 44. 7-50. 9 |
| Cutters, knife sharpeners, etc..... | 35. 55-54. 40 | 8. 46-12. 95 | . 86-1. 28 | 20. 5-30. 5 |
| Females: | | | | |
| Machine operators..... | 33. 15 | 7. 89 | . 78 | 18. 6 |
| Other workers..... | 17. 85-38. 25 | 4. 25-9. 10 | . 42-. 90 | 10. 0-21. 4 |

In the Hamburg district payment for piecework must be so arranged that the workers can earn on an average 15 per cent more than the weekly or hourly wages stipulated. Forewomen are paid 30 per cent more than the regular rate and, in the case of piecework, 35 per cent additional.

The working week in both Dresden and Hamburg consists of 5 days of 8½ hours each, or 42½ hours.

For overtime after 8 p. m. and before 6 a. m. during the summer and 7 a. m. during the winter, time and a half is paid; work on Sundays and legal holidays must be paid for at double the regular rates.

A vacation of from 4 to 15 working days per annum, depending on length of service, with pay, is provided for in Hamburg.

Clock and Watch Industry, Stuttgart District

This industry claims to be suffering from the loss of the United States markets. Wages have been reduced continuously. Watch-makers receive 90 to 120 pfennigs (21.4 to 28.6 cents) per hour if over 20 years of age and 60 to 90 pfennigs (14.3 to 21.4 cents) per hour if under 20 years of age.

Confectionery, Baking, and Pastry Trades

Table 12 shows the average actual hourly and weekly earnings and weekly hours of labor of adult workers in the German confectionery, baking, and pastry trades in March, 1931, disclosed by a study made by the Federal Statistical Office and covering 299 establishments with 33,405 workers in 137 localities.

TABLE 12.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE CONFECTIONERY, BAKING, AND PASTRY TRADES OF GERMANY, MARCH, 1931¹

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

| Class and sex of workers | Average weekly working hours | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Weekly earnings | |
|--------------------------|------------------------------|-------------------------|------------------------|---|------------------------|-----------------|------------------------|
| | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| Skilled workers, male: | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Time work..... | 47.0 | 109.3 | 26.0 | 101.1 | 24.1 | 51.35 | \$12.22 |
| Piece work..... | 44.5 | 129.2 | 30.7 | 119.1 | 28.3 | 57.48 | 13.68 |
| Unskilled workers, male: | | | | | | | |
| Time work..... | 46.4 | 89.3 | 21.3 | 85.8 | 20.4 | 41.44 | 9.86 |
| Piece work..... | 47.4 | 104.1 | 24.8 | 97.8 | 23.3 | 49.31 | 11.74 |
| Female workers: | | | | | | | |
| Time work..... | 44.8 | 58.0 | 13.8 | 56.0 | 13.3 | 25.97 | 6.18 |
| Piece work..... | 44.5 | 67.7 | 16.1 | 65.6 | 15.6 | 30.08 | 7.16 |

¹ Data are from Germany, Statistisches Reichsamt, Wirtschaft und Statistik, Nov. 1, 1931, pp. 767-770.

The wage rates paid under agreements in effect on April 1, 1929, 1930, and 1931, are given in the following table:

TABLE 13.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE CONFECTIONERY, BAKING, AND PASTRY TRADES IN GERMANY, APRIL 1, 1929, 1930, AND 1931¹

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Class of workers | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|----------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Skilled workers..... | 96.9 | 23.1 | 101.0 | 24.0 | 96.0 | 22.8 |
| Helpers..... | 82.7 | 19.7 | 86.2 | 20.5 | 81.9 | 19.5 |
| Female workers..... | 55.5 | 13.2 | 57.8 | 13.8 | 54.9 | 13.1 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 293.

Flour-Milling Industry

Bavaria.—In the milling industry in Bavaria, overtime on week days is paid for at the rate of time and a quarter and Sunday work at the rate of time and a half.

Table 14 shows the basic weekly wage rates and overtime rates in the various occupational groups in this industry. Occupations included in these groups are as follows: Group A includes skilled millers, helpers on shift work, steam engineers, stokers, and truck helpers; Group B includes helpers and night watchmen; and Group C includes female workers. Milling-machine tenders, grinders,

drivers of horses and auto trucks, and hand workers receive a wage 5 per cent higher than that shown in Group A. Workers, male and female, under 20 years of age receive 10 per cent less wages than adult workers, according to their class.

TABLE 14.—BASIC WEEKLY WAGE RATES AND OVERTIME RATES PER HOUR IN THE MILLING INDUSTRY OF BAVARIA, GERMANY

[Conversions into United States currency on basis of mark=23.8 cents]

| Locality class, and occupational group | Weekly wage rate | | Overtime rate per hour for— | | | |
|--|------------------|------------------------|-----------------------------|------------------------|-----------------|------------------------|
| | | | Week days | | Sunday | |
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| Large cities: | Marks | | Marks | Cents | Marks | Cents |
| Group A..... | 48.00 | \$11.42 | 1.25 | 29.8 | 1.50 | 35.7 |
| Group B..... | 44.20 | 10.52 | 1.15 | 27.4 | 1.40 | 33.3 |
| Group C..... | 31.70 | 7.54 | .85 | 20.2 | 1.00 | 23.8 |
| Class I establishments: | | | | | | |
| Group A..... | 45.10 | 10.73 | 1.20 | 28.6 | 1.45 | 34.5 |
| Group B..... | 41.50 | 9.88 | 1.10 | 26.2 | 1.30 | 30.9 |
| Group C..... | 29.80 | 7.09 | .75 | 17.9 | .90 | 21.4 |
| Class II establishments: | | | | | | |
| Group A..... | 42.20 | 10.04 | 1.10 | 26.2 | 1.30 | 30.9 |
| Group B..... | 38.90 | 9.26 | 1.00 | 23.8 | 1.25 | 29.8 |
| Group C..... | 27.90 | 6.64 | .70 | 16.7 | .85 | 20.2 |
| Class III establishments: | | | | | | |
| Group A..... | 39.40 | 9.38 | 1.00 | 23.8 | 1.25 | 29.8 |
| Group B..... | 36.20 | 8.62 | .95 | 22.6 | 1.15 | 27.4 |
| Group C..... | 26.00 | 6.19 | .65 | 15.5 | .80 | 19.0 |
| Class IV establishments: | | | | | | |
| Group A..... | 37.40 | 8.90 | .95 | 22.6 | 1.15 | 27.4 |
| Group B..... | 34.50 | 8.21 | .90 | 21.4 | 1.10 | 26.2 |
| Group C..... | 24.70 | 5.88 | .65 | 15.5 | .80 | 19.0 |
| Aichach (Class III plus 3 per cent): | | | | | | |
| Group A..... | 40.60 | 9.66 | 1.05 | 25.0 | 1.26 | 30.0 |
| Group B..... | 37.40 | 8.90 | .98 | 23.3 | 1.18 | 28.1 |
| Group C..... | 26.80 | 6.38 | .69 | 16.4 | .83 | 19.8 |

Rhineland and Westphalia.—The basic weekly wage rates paid in this district are shown in the following table. The group classifications are residential, based on the relative cost of living.

TABLE 15.—WEEKLY WAGE RATES IN THE MILLING INDUSTRY OF RHINELAND AND WESTPHALIA, GERMANY

[Conversions into United States currency on basis of mark=23.8 cents]

| Class of workers | Group I | | Group II | | Group III | |
|---|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| Skilled workers, roller operators, millers, enginemen, and stokers..... | Marks 52.50 | \$12.50 | Marks 51.50 | \$12.26 | Marks 50.50 | \$12.02 |
| Workers in sacking department..... | 49.88 | 11.87 | 48.93 | 11.65 | 47.98 | 11.42 |
| Other workers..... | 47.25 | 11.25 | 46.35 | 11.03 | 45.45 | 10.82 |
| Female workers..... | 30.71 | 7.31 | 30.13 | 7.17 | 29.54 | 7.03 |

The regular working time and overtime pay in Rhineland and Westphalia are the same as in Bavaria. Work on a regular night shift is paid 5 per cent more than the basic hourly wage. Regular workers doing occasional dirty work, i. e., cleaning boilers, etc., re-

ceive an increase of 33½ per cent of the basic hourly wage for such work.

Leave of absence with pay is granted to all workers as follows: After 1 year of service in the same employ, 3 days; after 2 years, 4 days; after 3 years, 6 days; after 4 years, 7 days; after 5 years, 8 days; after 6 years, 10 days; and after 8 years, 12 days.

A family allowance of 5 per cent of the worker's hourly wage is granted to married male workers, widows having their own households, single workers supporting destitute, unemployed or sick relatives, and female workers whose husbands are unemployed or who have been prevented from working by sickness for more than 17 days. Workers receiving family allowances are entitled to a free supply of 3 pounds of flour per week. If both husband and wife are employed in the same mill, the wife receives an additional supply of 3 pounds of flour per week.

Fur Tailoring Industry, Central Germany

The following basic hourly wage rates were being paid in the fur-tailoring industry of central Germany in September, 1931. Under the national emergency decree of December 8, 1931, however, the wage rates in this industry were reduced 10 per cent, effective January, 1, 1932.

TABLE 16.—BASIC HOURLY WAGE RATES IN THE FUR-TAILORING INDUSTRY OF CENTRAL GERMANY, SEPTEMBER, 1931

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Occupation and period | Wage rates per hour | |
|---|---------------------|------------------------|
| | German currency | United States currency |
| | Pfennigs | Cents |
| Furriers, male: | | |
| First year after apprenticeship..... | 67 | 15.9 |
| Second year after apprenticeship..... | 78 | 18.6 |
| Third year after apprenticeship..... | 94 | 22.4 |
| Over 3 years after apprenticeship..... | 111 | 26.4 |
| Fur seamstresses, sewing-machine workers (2 years' apprenticeship): | | |
| First year after apprenticeship..... | 37 | 8.8 |
| Second year after apprenticeship..... | 46 | 10.9 |
| Third year after apprenticeship..... | 56 | 13.3 |
| Over 3 years after apprenticeship..... | 65 | 15.5 |
| Sewing-machine workers, female (6 weeks' apprenticeship): | | |
| From 6 weeks to 6 months' work at trade..... | 33 | 7.9 |
| From 6 months to 1 year's work at trade..... | 37 | 8.8 |
| Second year of work at trade..... | 56 | 13.3 |
| Over 3 years' work at trade..... | 65 | 15.5 |
| Other seamstresses, unskilled..... | 65 | 15.5 |
| Piece selectors..... | 42 | 10.0 |

Glass Industry

Hollow glass.—As an example of the basic wage rates in the hollow-glass industry, the following data are given showing the hourly wage rates paid to skilled workers under the agreement effective in 1928 in the hollow-glass works in Thuringia:

TABLE 17.—BASIC HOURLY WAGE RATES IN THE HOLLOW-GLASS INDUSTRY IN THURINGIA, GERMANY, EFFECTIVE 1928

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Occupation | Perfume bottles | | Chemical and technical glassware | | Miscellaneous glass articles | |
|--|-----------------|------------------------|----------------------------------|------------------------|------------------------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| Foremen: | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Smelters..... | 77-96 | 18.3-22.8 | 107 | 25.5 | | |
| Patternmakers..... | | | 85 | 20.2 | | |
| Pot makers..... | 74-83 | 17.6-19.8 | 85 | 20.2 | | |
| Glassmakers..... | | | 98 | 23.3 | | |
| Tube makers..... | | | | | 91.5 | 21.8 |
| Finishers..... | 88 | 20.9 | | | | |
| Marblemakers (<i>Maerbelmacher</i>)..... | | | | | 66.0 | 15.7 |
| Journeyman: | | | | | | |
| Smelters..... | | | 66 | 15.7 | | |
| Pot makers..... | 50-55 | 11.9-13.1 | 55 | 13.1 | | |
| Grinders..... | 70 | 16.7 | 77 | 18.3 | | |
| Glassmakers..... | | | 77 | 18.3 | | |
| Blowers..... | 70 | 16.7 | | | | |
| Tube drawers..... | | | | | 74.5 | 17.7 |
| Furnace firemen..... | 62-66 | 14.8-15.7 | 66 | 15.7 | 66.0 | 15.7 |
| Matrix mixers..... | | | 34-37 | 8.1-8.8 | | |
| Carriers..... | 23-32 | 5.5-7.6 | 26-32 | 6.2-7.6 | 26.0-32.0 | 6.2-7.6 |
| Glass inspectors..... | 50-55 | 11.9-13.1 | 60 | 14.3 | | |
| Emptiers..... | 50-55 | 11.9-13.1 | 55 | 13.1 | | |
| Yardmen..... | 50-55 | 11.9-13.1 | 55 | 13.1 | 55.0 | 13.1 |
| Packers..... | 50-55 | 11.9-13.1 | 55 | 13.1 | 55.0 | 13.1 |
| Grinders, female..... | 36-40 | 8.6-9.5 | 40 | 9.5 | | |
| Helpers, female..... | 36-40 | 8.6-9.5 | 40 | 9.5 | | |

Under the national emergency decree of December 8, 1931, agreement wage rates were reduced 12.5 per cent for skilled male workers and 15 per cent for helpers and female workers, effective January 1, 1932.

Plate glass.—The following wages are paid for a 48-hour week in the plate-glass industry in Silesia:

TABLE 18.—WEEKLY WAGES IN THE PLATE-GLASS INDUSTRY IN SILESIA, GERMANY

[Conversions into United States currency on basis of mark=23.8 cents]

| Occupation, class of worker, and marital condition | Wages per 48-hour week | |
|--|--------------------------|------------------------|
| | German currency | United States currency |
| Foremen: | <i>Marks</i> | |
| Smelters on 10-pot furnaces— | | |
| Married..... | 44.89 | \$10.68 |
| Single..... | 39.80 | 9.47 |
| Smelters on 12-pot furnaces— | | |
| Married..... | 46.02 | 10.95 |
| Single..... | 40.92 | 9.74 |
| Mold makers, married..... | ¹ 49.01 | ¹ 11.66 |
| Mold makers, single..... | ¹ 38.84 | ¹ 9.24 |
| Pot makers, married..... | ¹ 49.01 | ¹ 11.67 |
| Pot makers, single..... | ¹ 38.84 | ¹ 9.24 |
| Journeyman: | | |
| Smelters (2 to a furnace)— | | |
| Married..... | 30.20 | 7.19 |
| Single..... | 27.93 | 6.65 |
| Smelters (only 1 to a furnace)— | | |
| Married..... | 33.58 | 7.99 |
| Single..... | 30.20 | 7.19 |
| Mold makers..... | ¹ 21.32-30.36 | ¹ 5.07-7.23 |
| Mold makers with 6 years' experience— | | |
| Married..... | ¹ 39.97 | ¹ 9.51 |
| Single..... | ¹ 32.06 | ¹ 7.63 |
| Pot makers, married..... | ¹ 34.04 | ¹ 8.10 |
| Pot makers, single..... | ¹ 28.09 | ¹ 6.69 |
| Pot makers with 6 years' experience— | | |
| Married..... | ¹ 37.15 | ¹ 8.84 |
| Single..... | ¹ 30.92 | ¹ 7.36 |

¹ Per 54-hour week.

TABLE 18.—WEEKLY WAGES IN THE PLATE-GLASS INDUSTRY IN SILESIA, GERMANY—Continued

| Occupation, class of worker, and marital condition | Wages per 48-hour week | |
|---|--------------------------|------------------------|
| | German currency | United States currency |
| | <i>Marks</i> | |
| Glassmakers at furnaces, single or married..... | 30.62-35.41 | \$7.29-\$8.43 |
| Stokers, married..... | 35.28 | 8.40 |
| Stokers, single..... | 31.99 | 7.61 |
| Emptiers, single or married..... | 27.36 | 6.51 |
| Emptiers and block carriers, married..... | 30.24 | 7.20 |
| Emptiers and block carriers, single..... | 29.28 | 6.97 |
| Glass examiners, married..... | ¹ 35.45-37.15 | ¹ 8.44-8.80 |
| Glass examiners, single..... | ¹ 28.66-33.18 | ¹ 6.82-7.90 |
| Glass sorters, married..... | ¹ 33.18 | ¹ 7.90 |
| Glass sorters, single..... | ¹ 26.41 | ¹ 6.29 |
| Packers, married..... | 27.84-30.24 | 6.63-7.20 |
| Packers, single..... | 24.48-27.36 | 5.83-6.51 |
| Adjusters and sand blowers, married (over 23 years of age)..... | 31.68 | 7.74 |
| Adjusters and sand blowers, single (20 to 23 years of age)..... | 28.32 | 6.74 |
| Polishers, single or married..... | 29.63-34.29 | 7.05-8.16 |
| Decorators and engravers, married..... | 39.97 | 9.51 |
| Decorators and engravers, single..... | 36.02 | 8.57 |
| Etchers, married..... | 35.53 | 8.46 |
| Etchers, single..... | 32.01 | 7.62 |
| Laborers, yard, married..... | 26.88-30.24 | 6.40-7.20 |
| Laborers, yard, single..... | 24.00-26.88 | 5.71-6.40 |
| Female workers..... | 14.64 | 3.48 |

¹ Per 54-hour week.

Iron and Steel Industry

The Federal Statistical Office made a study of the actual earnings of adult workers in the iron and steel industry in October, 1928; the hourly and weekly earnings of such workers and also the agreement wage rates shown in the following table are taken from the published results of its study.⁵

TABLE 19.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE IRON AND STEEL INDUSTRY OF GERMANY, BY DEPARTMENTS, OCTOBER, 1928

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

| Department, occupation, and sex | Num-ber of work-ers | Aver-age work-ing hours per week | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings | |
|---------------------------------|---------------------|----------------------------------|-------------------------|-------------------------|---|-------------------------|-------------------------|-------------------------|
| | | | Ger-man cur-rency | United States cur-rency | Ger-man cur-rency | United States cur-rency | Ger-man cur-rency | United States cur-rency |
| <i>Blast furnaces</i> | | | | | | | | |
| Smelters: Piece work..... | 484 | 53½ | <i>Pfennigs</i> 107.2 | <i>Cents</i> 25.5 | <i>Pfennigs</i> 81.1 | <i>Cents</i> 19.3 | <i>Marks</i> 58.85 | \$14.01 |
| Other workers: | | | | | | | | |
| Time work..... | 1,419 | 57¾ | 87.3 | 20.8 | ----- | ----- | 51.78 | 12.32 |
| Piece work..... | 5,780 | 56¼ | 102.0 | 24.3 | ----- | ----- | 58.92 | 14.02 |
| <i>Steel works</i> | | | | | | | | |
| Smelters: Piece work..... | 1,088 | 50¼ | 121.2 | 28.8 | 81.9 | 19.5 | 62.48 | 14.87 |
| Other workers: | | | | | | | | |
| Time work..... | 687 | 51¾ | 86.4 | 20.6 | ----- | ----- | 45.92 | 10.93 |
| Piece work..... | 9,215 | 50½ | 104.2 | 24.8 | ----- | ----- | 54.19 | 12.90 |
| <i>Rolling mills</i> | | | | | | | | |
| Rollers: Piece work..... | 3,056 | 48¾ | 136.3 | 32.4 | 79.8 | 19.0 | 67.49 | 16.06 |
| Other workers: | | | | | | | | |
| Time work..... | 1,509 | 53 | 82.9 | 19.7 | ----- | ----- | 45.18 | 10.75 |
| Piece work..... | 16,930 | 50¾ | 107.2 | 25.5 | ----- | ----- | 55.77 | 13.27 |

⁵ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 275.

TABLE 19.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE IRON AND STEEL INDUSTRY OF GERMANY, BY DEPARTMENTS, OCTOBER, 1928—Continued

| Department, occupation, and sex | Number of workers | Average working hours per week | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings | |
|---|-------------------|--------------------------------|-------------------------|------------------------|---|------------------------|-------------------------|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| <i>Foundries</i> | | | | | | | | |
| Skilled workers: | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Time work..... | 77 | 55½ | 92.0 | 21.9 | 74.5 | 17.7 | 52.82 | \$12.57 |
| Piece work..... | 1,140 | 52¾ | 109.4 | 26.0 | 85.7 | 20.4 | 58.92 | 14.02 |
| Semiskilled workers: | | | | | | | | |
| Time work..... | 473 | 52¾ | 84.1 | 20.0 | 70.1 | 16.7 | 45.66 | 10.87 |
| Piece work..... | 1,981 | 52¾ | 100.9 | 24.0 | 76.1 | 18.1 | 54.39 | 12.94 |
| Unskilled workers: | | | | | | | | |
| Time work..... | 483 | 51½ | 74.5 | 17.7 | 63.7 | 15.2 | 39.30 | 9.35 |
| Piece work..... | 450 | 52¾ | 95.7 | 22.8 | 67.1 | 16.0 | 51.42 | 12.24 |
| <i>Mechanical and electrical repair shops</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work..... | 2,180 | 55¼ | 90.3 | 21.5 | 75.6 | 18.0 | 51.39 | 12.23 |
| Piece work..... | 5,354 | 55¾ | 98.3 | 23.4 | 82.8 | 19.7 | 56.49 | 13.44 |
| Semiskilled workers: | | | | | | | | |
| Time work..... | 838 | 55½ | 78.3 | 18.6 | 66.7 | 15.9 | 44.87 | 10.68 |
| Piece work..... | 1,328 | 54¾ | 89.5 | 21.3 | 74.7 | 17.8 | 50.48 | 12.01 |
| Unskilled workers: | | | | | | | | |
| Time work..... | 322 | 54½ | 69.0 | 16.4 | 61.6 | 14.7 | 39.15 | 19.3 |
| Piece work..... | 538 | 53¼ | 90.0 | 21.4 | 67.8 | 16.1 | 50.13 | 13.92 |

Jewelry Industry, Stuttgart

There is a concentration of the jewelry industry in the vicinity of Pforzheim and Gmünd. Employment in the industry was poor during the year 1931, but increased toward the end of autumn due to stimulation in buying for the Christmas trade.

Employers are paying from 10 to 20 per cent below the agreement wage rates. Below are shown the hourly wages which were being paid in the jewelry industry late in 1931.

| | | |
|---|----------|-------------------|
| Unskilled workers: | Pfennigs | |
| Males, over 23 years of age..... | 70 | (16.7 cents) |
| Males, under 23 years of age..... | 50-60 | (11.9-14.3 cents) |
| Females, under 23 years of age..... | 45-55 | (10.7-13.1 cents) |
| Polishers, skilled, over 23 years of age..... | 55-65 | (13.1-15.5 cents) |
| Goldsmiths, skilled: | | |
| Over 23 years of age..... | 85-100 | (20.2-23.8 cents) |
| Under 23 years of age..... | 60-85 | (14.5-20.2 cents) |

Lingerie, Wash Wear, and Corset Industry, Cologne

Hourly wage rates in this industry for adult workers are as follows, younger workers being paid less according to age groups:

| | | |
|--|----------|--------------|
| | Pfennigs | |
| Seamstresses and ironers, female..... | 56 | (13.3 cents) |
| Helpers, female..... | 49 | (11.7 cents) |
| Packers, males ironers, and cutters..... | 88 | (21.0 cents) |
| Ironers who are skilled tailors..... | 96 | (22.9 cents) |
| Cutters..... | 98 | (23.3 cents) |
| Corset cutters..... | 96 | (22.8 cents) |

The wage of the chief cutter is fixed by free agreement. Female cutters receive 15 per cent more than seamstresses and ironers, and

forewomen and cutters designing patterns independently receive 25 per cent more.

Rates for piecework must be so fixed as to enable a normally efficient worker to earn at least 56 pfennigs (13.3 cents) per hour.

In this industry, 6 hours' overtime per week must be worked if required by the employers; this overtime is paid for as follows: For the first 2 hours, 10 per cent increase over the regular rates; for the third and fourth hours, 25 per cent increase; and for the fifth and sixth hours, 30 per cent increase. Night and Sunday work is paid for at the rate of 50 per cent extra.

Leave of absence with pay varies with the period of continuous employment of the worker, as follows: After 9 months, 4 days; after 21 months, 5 days; after 33 months, 6 days; and after 45 months, 7 days.

Lumber Industry

Forestry (lumbering) in Germany includes the planting of trees and their care during growth until they are large enough to cut, as well as the felling of trees and hauling the logs. The logs are not usually cut into lumber on the spot but shipped to sawmills, which are generally located in or near the larger centers of population, where the cut lumber is in demand. The industry is not, therefore, to be likened to American logging and lumbering activities. The logs produced are comparatively small and easily handled, and little or no equipment especially made for the logging industry is required.

Employment in the industry in the Stuttgart district was poor in the fall of 1931. The national conservation policy is strictly upheld by the various States regardless of repeated requests for extensions of quotas. Timber cutters and woodchoppers earn about 80 pfennigs (19 cents) per hour and manage to work three or four days a week. Foremen earn 1.20 marks (28.6 cents) per hour, and factory hands, 84 to 89 pfennings (20.0-21.2 cents) per hour.

The sawmill operators are attempting to cancel the wage agreement now in existence which, under the terms of the contract, can not be terminated until May 31, 1932.

In the district of Bavaria, workers in sawmills are paid the following basic hourly wage rates: Sawyers, male, 76-92 pfennigs (18.1-21.9 cents); unskilled workers, male, 68-85 pfennigs (16.2-20.2 cents); unskilled workers, female, 50-59 pfennigs (11.9-14.0 cents).

Margarine Industry

Basic wage rates in this industry are fixed according to the age and sex of the worker and the type of work performed, and also according to residential classifications based on the relative cost of living. Piece rates must be such as to yield minimum earnings per hour 20 per cent over the basic hourly rate. Regular night-shift work is paid 10 per cent more than day work.

The following table indicates the basic wage rates in force in the German margarine industry for adults over 20 years of age, lower wage rates being paid for younger workers. It should be noted, however, that, effective November 1, 1931, an average reduction of about 4.5 per cent in all wages was scheduled.

TABLE 20.—BASIC HOURLY WAGES IN THE MARGARINE INDUSTRY OF GERMANY
[Conversions into United States currency on basis of pfennig=0.238 cent]

| Locality group | Males | | Females | |
|----------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency |
| | Pfennigs | Cents | Pfennigs | Cents |
| Group I..... | 110.0 | 26.2 | 73.5 | 17.5 |
| Group II..... | 97.5 | 23.2 | 65.0 | 15.5 |
| Group III..... | 85.5 | 20.3 | 57.0 | 13.6 |
| Group IV..... | 76.5 | 18.2 | 51.0 | 12.1 |
| Group V..... | 69.0 | 16.4 | 46.0 | 10.9 |

Overtime work in the margarine industry is paid for at the rate of 25 per cent extra and Sunday work 50 per cent extra. For work on Christmas, Easter, Whitsuntide, and New Year's Day double rates are paid and for work on other legal holidays time and a half.

Four days' leave with pay, each year, is granted to workers under 20 years of age. Workers over 20 years of age are given a number of working-days off with pay each year, the number varying according to the period of service, as follows: For from 1 to 4 years' service, 6 days; for 5 to 7 years' service, 9 days; for 8 to 9 years' service, 10 days; for 9 to 10 years' service, 11 days; after 10 years' service, 12 days. Sick leave with pay is granted as follows: For 3 months' service, 1 day; for 3 months to 1 year of service, 3 days; from 1 to 2 years' service, 6 days; from 2 to 5 years' service, 9 days; and over 5 years' service, 12 days.

Metal-Working Industry

Table 21 shows the actual earnings of adult metal workers in October, 1928, as shown by a study made by the Federal Statistical Office of Germany.

TABLE 21.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS OF METAL WORKERS IN GERMANY, OCTOBER, 1928¹

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

| Branch of industry and class of workers | Number of workers | Average working hours per week | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings | |
|---|-------------------|--------------------------------|-------------------------|------------------------|---|------------------------|-------------------------|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| <i>Iron and steel goods</i> | | | | | | | | |
| Skilled workers: | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Time work | 5,739 | 50¼ | 98.0 | 23.3 | 79.3 | 18.9 | 49.79 | \$11.85 |
| Piece work | 6,690 | 48 | 117.8 | 28.0 | 89.8 | 21.4 | 56.71 | 13.50 |
| Semiskilled workers: | | | | | | | | |
| Time work | 2,230 | 49¾ | 87.7 | 20.9 | 71.7 | 17.1 | 44.15 | 10.51 |
| Piece work | 4,150 | 47¾ | 108.1 | 25.7 | 83.8 | 19.9 | 52.18 | 12.42 |
| Helpers: | | | | | | | | |
| Time work | 2,540 | 49¼ | 82.0 | 19.5 | 68.6 | 16.3 | 40.98 | 9.75 |
| Piece work | 1,411 | 47¾ | 104.3 | 24.8 | 79.9 | 19.0 | 50.38 | 11.99 |
| Female workers: | | | | | | | | |
| Time work | 1,247 | 44¾ | 53.1 | 12.6 | 46.8 | 11.1 | 23.89 | 5.69 |
| Piece work | 2,731 | 45¼ | 63.2 | 15.0 | 52.8 | 12.6 | 28.60 | 6.81 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 276.

TABLE 21.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS OF METAL WORKERS IN GERMANY, OCTOBER, 1928—Continued

| Branch of industry and class of workers | Number of workers | Average working hours per week | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings | |
|---|-------------------|--------------------------------|-------------------------|------------------------|---|------------------------|-------------------------|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| Metal goods | | | | | | | | |
| Skilled workers: | | | Pfennigs | Cents | Pfennigs | Cents | Marks | |
| Time work | 2,377 | 48¾ | 103.9 | 24.7 | 82.2 | 19.6 | 51.01 | \$12.14 |
| Piece work | 2,779 | 47¼ | 118.0 | 28.1 | 92.0 | 21.9 | 56.09 | 13.35 |
| Semiskilled workers: | | | | | | | | |
| Time work | 1,785 | 50 | 82.4 | 19.6 | 71.3 | 17.0 | 41.78 | 9.94 |
| Piece work | 2,341 | 48 | 100.8 | 24.0 | 80.9 | 19.3 | 48.79 | 11.61 |
| Helpers: | | | | | | | | |
| Time work | 1,553 | 48¾ | 73.6 | 17.5 | 68.0 | 16.2 | 35.81 | 8.52 |
| Piece work | 553 | 46½ | 96.8 | 23.0 | 76.9 | 18.3 | 45.19 | 10.76 |
| Female workers: | | | | | | | | |
| Time work | 1,650 | 46¾ | 50.8 | 12.1 | 46.7 | 11.1 | 23.96 | 5.70 |
| Piece work | 1,768 | 46¼ | 62.5 | 14.9 | 55.9 | 13.3 | 28.90 | 6.88 |
| Machine construction | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 11,302 | 49 | 105.6 | 25.1 | 83.5 | 19.9 | 52.75 | 12.55 |
| Piece work | 26,748 | 47¼ | 116.8 | 27.8 | 93.3 | 22.2 | 56.00 | 13.33 |
| Semiskilled workers: | | | | | | | | |
| Time work | 6,659 | 48¾ | 85.5 | 20.3 | 74.7 | 17.8 | 42.50 | 10.12 |
| Piece work | 11,165 | 47½ | 106.3 | 25.3 | 85.0 | 20.2 | 51.23 | 12.19 |
| Helpers: | | | | | | | | |
| Time work | 7,641 | 48¾ | 76.6 | 18.2 | 67.6 | 16.1 | 37.94 | 9.03 |
| Piece work | 1,444 | 47¾ | 92.7 | 22.1 | 79.1 | 18.8 | 45.02 | 10.71 |
| Female workers: | | | | | | | | |
| Time work | 1,683 | 46 | 51.1 | 12.2 | 44.3 | 10.5 | 23.57 | 5.61 |
| Piece work | 1,338 | 45½ | 65.5 | 15.6 | 57.2 | 13.6 | 29.82 | 7.10 |
| Boilers, heating apparatus, etc. | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 2,213 | 50 | 109.3 | 26.0 | 89.8 | 21.4 | 55.61 | 13.24 |
| Piece work | 5,509 | 46¾ | 121.3 | 28.9 | 103.4 | 24.6 | 57.20 | 13.61 |
| Semiskilled workers: | | | | | | | | |
| Time work | 1,346 | 49½ | 88.1 | 21.0 | 78.2 | 18.6 | 44.21 | 10.52 |
| Piece work | 2,585 | 47½ | 111.4 | 26.5 | 88.0 | 20.9 | 53.60 | 12.76 |
| Helpers: | | | | | | | | |
| Time work | 1,468 | 49 | 78.5 | 18.7 | 72.4 | 17.2 | 39.11 | 9.31 |
| Piece work | 211 | 48¼ | 91.9 | 21.9 | 77.8 | 18.5 | 44.89 | 10.68 |
| Female workers: | | | | | | | | |
| Time work | 253 | 42 | 50.8 | 12.1 | 48.5 | 11.5 | 21.41 | 5.10 |
| Piece work | 524 | 47 | 65.2 | 15.5 | 57.0 | 13.6 | 30.88 | 7.35 |
| Steel construction | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 1,813 | 51 | 99.2 | 23.6 | 83.1 | 19.8 | 51.93 | 12.36 |
| Piece work | 1,153 | 48 | 112.7 | 26.8 | 96.8 | 23.0 | 54.74 | 13.03 |
| Semiskilled workers: | | | | | | | | |
| Time work | 998 | 50 | 87.0 | 20.7 | 73.7 | 17.5 | 44.53 | 10.60 |
| Piece work | 757 | 47¾ | 101.6 | 24.2 | 87.4 | 20.8 | 48.52 | 11.55 |
| Helpers: | | | | | | | | |
| Time work | 1,088 | 49¾ | 81.7 | 19.4 | 73.6 | 17.5 | 41.55 | 9.89 |
| Piece work | 423 | 47 | 91.3 | 21.7 | 84.3 | 20.1 | 43.23 | 10.29 |
| Shipbuilding | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 1,054 | 50¼ | 108.7 | 25.9 | 85.8 | 20.4 | 56.31 | 13.40 |
| Piece work | 5,925 | 47¼ | 110.3 | 26.3 | 101.0 | 24.0 | 53.09 | 12.64 |
| Semiskilled workers: | | | | | | | | |
| Time work | 442 | 48¾ | 89.1 | 21.2 | 80.3 | 19.1 | 44.80 | 10.66 |
| Piece work | 866 | 46¾ | 96.7 | 23.0 | 92.7 | 22.1 | 46.21 | 11.00 |
| Helpers: | | | | | | | | |
| Time work | 466 | 47¼ | 78.8 | 18.8 | 72.2 | 17.2 | 37.83 | 9.00 |
| Piece work | 624 | 43¾ | 81.8 | 19.5 | 82.4 | 19.6 | 36.40 | 8.66 |

TABLE 21.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS OF METAL WORKERS IN GERMANY, OCTOBER, 1928—Continued

| Branch of industry and class of workers | Number of workers | Average working hours per week | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings | |
|---|-------------------|--------------------------------|-------------------------|------------------------|---|------------------------|-------------------------|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| <i>Vehicles, aircraft, etc.</i> | | | | | | | | |
| Skilled workers: | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Time work | 5,158 | 47 | 112.5 | 26.8 | 84.5 | 20.1 | 53.55 | \$12.74 |
| Piece work | 12,486 | 46 | 126.8 | 30.2 | 96.1 | 22.9 | 58.86 | 14.01 |
| Semiskilled workers: | | | | | | | | |
| Time work | 2,124 | 47 | 94.3 | 22.4 | 75.3 | 17.9 | 44.82 | 10.67 |
| Piece work | 4,733 | 44¾ | 113.7 | 27.1 | 86.3 | 20.5 | 51.22 | 12.19 |
| Helpers: | | | | | | | | |
| Time work | 1,939 | 48 | 79.6 | 18.9 | 69.6 | 16.6 | 38.70 | 9.21 |
| Piece work | 850 | 45 | 99.7 | 23.7 | 79.3 | 18.9 | 45.17 | 10.75 |
| Female workers: | | | | | | | | |
| Time work | 499 | 43 | 57.5 | 13.7 | 49.0 | 11.7 | 24.92 | 5.93 |
| Piece work | 551 | 43¾ | 72.6 | 17.3 | 55.3 | 13.2 | 31.47 | 7.49 |
| <i>Railway rolling stock</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 969 | 49 | 104.6 | 24.9 | 82.9 | 19.7 | 52.28 | 12.44 |
| Piece work | 5,410 | 47¾ | 115.4 | 27.5 | 96.5 | 23.0 | 54.97 | 13.08 |
| Semiskilled workers: | | | | | | | | |
| Time work | 521 | 48¾ | 83.4 | 19.8 | 74.0 | 17.6 | 41.20 | 9.81 |
| Piece work | 1,317 | 47¾ | 100.2 | 23.8 | 86.3 | 20.5 | 48.04 | 11.43 |
| Helpers: | | | | | | | | |
| Time work | 908 | 49¼ | 74.3 | 17.7 | 67.8 | 16.1 | 37.36 | 8.89 |
| Piece work | 200 | 47 | 84.5 | 20.1 | 75.5 | 18.0 | 40.18 | 9.56 |
| Female workers: | | | | | | | | |
| Time work | 47 | 45 | 48.5 | 11.5 | 43.7 | 10.4 | 21.86 | 5.20 |
| Piece work | 197 | 45¾ | 59.1 | 14.1 | 49.7 | 11.8 | 27.11 | 6.45 |
| <i>Electrical apparatus</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 9,696 | 49½ | 113.2 | 26.9 | 96.2 | 22.9 | 56.76 | 13.51 |
| Piece work | 21,389 | 47½ | 124.0 | 29.5 | 109.8 | 26.1 | 59.23 | 14.10 |
| Semiskilled workers: | | | | | | | | |
| Time work | 4,722 | 49¾ | 89.3 | 21.3 | 79.9 | 19.0 | 44.99 | 10.71 |
| Piece work | 9,854 | 46¾ | 108.3 | 25.8 | 92.9 | 22.1 | 51.02 | 12.14 |
| Helpers: | | | | | | | | |
| Time work | 9,474 | 49 | 81.5 | 19.4 | 77.8 | 18.5 | 40.31 | 9.59 |
| Piece work | 4,576 | 47¾ | 95.3 | 22.7 | 89.6 | 21.3 | 45.31 | 10.78 |
| Female workers: | | | | | | | | |
| Time work | 5,449 | 45½ | 59.3 | 14.1 | 55.2 | 13.1 | 27.14 | 6.46 |
| Piece work | 21,984 | 46¾ | 66.8 | 15.9 | 63.0 | 15.0 | 30.96 | 7.37 |
| <i>Scientific and optical instruments</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 3,119 | 48½ | 112.4 | 26.8 | 82.3 | 19.6 | 55.06 | 13.10 |
| Piece work | 4,974 | 47¾ | 126.2 | 30.0 | 102.3 | 24.3 | 60.60 | 14.42 |
| Semiskilled workers: | | | | | | | | |
| Time work | 703 | 49 | 94.4 | 22.5 | 71.3 | 17.0 | 46.82 | 11.14 |
| Piece work | 1,877 | 46¾ | 117.7 | 28.0 | 89.0 | 21.2 | 54.62 | 13.00 |
| Helpers: | | | | | | | | |
| Time work | 1,166 | 49 | 83.6 | 19.9 | 69.4 | 16.5 | 41.50 | 9.88 |
| Piece work | 302 | 47½ | 104.3 | 24.8 | 93.2 | 22.2 | 49.69 | 11.83 |
| Female workers: | | | | | | | | |
| Time work | 1,988 | 47 | 55.6 | 13.2 | 50.1 | 11.9 | 26.22 | 6.24 |
| Piece work | 3,468 | 45½ | 71.8 | 17.1 | 59.1 | 14.1 | 32.84 | 7.82 |
| <i>All branches</i> | | | | | | | | |
| Skilled workers: | | | | | | | | |
| Time work | 43,440 | 49¼ | 107.4 | 25.6 | 86.1 | 20.5 | 53.61 | 12.76 |
| Piece work | 93,063 | 47¾ | 120.1 | 28.6 | 99.0 | 23.6 | 57.24 | 13.62 |
| Semiskilled workers: | | | | | | | | |
| Time work | 21,530 | 49 | 87.7 | 20.9 | 75.5 | 18.0 | 43.74 | 10.41 |
| Piece work | 39,645 | 47 | 107.9 | 25.7 | 87.4 | 20.8 | 51.21 | 12.19 |
| Helpers: | | | | | | | | |
| Time work | 28,243 | 48¾ | 79.1 | 18.8 | 71.9 | 17.1 | 39.19 | 9.33 |
| Piece work | 10,594 | 47 | 95.7 | 22.8 | 84.3 | 20.1 | 45.34 | 10.79 |
| Female workers: | | | | | | | | |
| Time work | 12,831 | 45¾ | 55.7 | 13.3 | 50.7 | 12.1 | 25.58 | 6.09 |
| Piece work | 32,573 | 46 | 66.7 | 15.9 | 60.7 | 14.4 | 30.78 | 7.33 |

In Table 22 are shown average wage rates, established by collective agreement, for metal workers on April 1, 1929, 1930, and 1931.

TABLE 22.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE METAL-WORKING INDUSTRY, IN GERMANY, APRIL 1, 1929, 1930, AND 1931¹

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Class of workers | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|--------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | Pfennigs | Cents | Pfennigs | Cents | Pfennigs | Cents |
| Skilled workers..... | 93.4 | 22.2 | 95.4 | 22.7 | 90.9 | 21.6 |
| Semiskilled workers..... | 84.9 | 20.2 | 87.1 | 20.7 | 82.5 | 19.6 |
| Helpers, male..... | 74.7 | 17.8 | 76.5 | 18.2 | 72.8 | 17.3 |
| Helpers, female..... | 54.3 | 12.9 | 56.0 | 13.3 | 52.8 | 12.6 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 284.

A special allowance is frequently given for especially dirty or dangerous work.

Under the national emergency decree of December 8, 1931, wage rates in this industry in central Germany were reduced 10 per cent, effective January 1, 1932.

The usual increases in rates for overtime work and work on holidays are as follows: Overtime, 25 per cent; Sundays and legal holidays, 50 per cent; and work on Easter, Christmas, and Whitsuntide, 100 per cent. In some districts a higher rate (usually 30 or 50 per cent) is paid after the first two hours of overtime. Leave of absence with pay is generally granted after one year's service, beginning with 3 days' leave and increasing 1 day with each year of service up to from 6 to 11 days, according to locality.

Family allowances, ranging from 1 to 3.3 pfennigs (0.24 to 0.78 cent) per hour for wife and each dependent child, according to locality, are usual.

Paper Industry

Table 23 shows the results of an investigation of wages and hours of labor in the paper industry in May, 1930, made by the German Federal Statistical Office and covering 27,499 workers in 327 establishments manufacturing paper, cardboard, cellulose, and wood pulp; this was about one-third of the adult workers engaged in the paper industry in Germany. The table shows the average hourly earnings, excluding overtime and family allowances, the agreement hourly wage rates or wages on the piece-rate basis, the average weekly hours, including overtime; and the average gross weekly earnings, including overtime. About three-fourths of the workers covered in the study were paid on a time-rate basis and about one-fourth on a piece-rate basis.

TABLE 23.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE PAPER INDUSTRY OF GERMANY, MAY, 1930, BY OCCUPATIONS¹

[Conversions into United States currency on basis of mark=23.8 cents, pfennig=0.238 cent]

| Occupation | Number of workers | Average working hours per week ² | Average hourly earnings | | Agreement hourly rates on time or piece-work basis | | Average gross weekly earnings ² | |
|---|-------------------|---|-------------------------|------------------------|--|------------------------|--|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| <i>Time rates (including production bonus)</i> | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Paper-machine operators..... | 1,022 | 47.7 | 109.6 | 26.1 | 96.2 | 22.9 | 53.94 | \$12.84 |
| First paper-machine assistants..... | 1,333 | 46.9 | 90.0 | 21.9 | 83.2 | 19.8 | 43.57 | 10.37 |
| Beater men, paper..... | 1,275 | 46.2 | 92.1 | 21.9 | 84.3 | 20.1 | 43.68 | 10.40 |
| Calender men and cutting-machine operators..... | 1,690 | 45.3 | 86.9 | 20.7 | 82.6 | 19.7 | 40.04 | 9.53 |
| Cardboard-machine operators..... | 208 | 49.0 | 90.5 | 21.5 | 81.9 | 19.5 | 46.18 | 10.98 |
| Takers-off, cardboard..... | 456 | 46.0 | 74.2 | 17.7 | 71.3 | 17.0 | 34.92 | 8.31 |
| Beater men, cardboard..... | 199 | 47.5 | 81.2 | 19.3 | 76.5 | 18.2 | 39.87 | 9.49 |
| Assistant beater men..... | 285 | 45.6 | 77.2 | 18.4 | 73.8 | 17.6 | 36.25 | 8.63 |
| Boiler men, cellulose..... | 201 | 51.1 | 98.2 | 23.4 | 86.0 | 20.5 | 54.00 | 12.85 |
| Machine operators, cellulose..... | 225 | 50.7 | 93.4 | 22.2 | 84.5 | 20.1 | 50.83 | 12.10 |
| Chopper men..... | 897 | 48.8 | 81.8 | 19.5 | 77.4 | 18.4 | 41.59 | 9.90 |
| Takers-off, wood pulp..... | 635 | 47.5 | 77.8 | 18.5 | 76.2 | 18.1 | 38.14 | 9.08 |
| Wood peelers..... | 604 | 46.4 | 82.5 | 19.6 | 76.4 | 18.2 | 39.01 | 9.28 |
| Assistants, unskilled, male..... | 6,616 | 46.9 | 79.2 | 18.8 | 75.1 | 17.9 | 38.34 | 9.12 |
| Female employees..... | 4,221 | 43.0 | 53.5 | 12.7 | 50.3 | 12.0 | 23.07 | 5.49 |
| <i>Piece rates</i> | | | | | | | | |
| First paper-machine assistants..... | 21 | 40.7 | 103.7 | 24.7 | 102.0 | 24.3 | 42.81 | 10.19 |
| Calender men and cutting-machine operators..... | 91 | 44.6 | 110.0 | 26.2 | 99.1 | 23.6 | 49.35 | 11.75 |
| Takers-off, cardboard..... | 16 | 45.6 | 93.1 | 22.2 | 91.8 | 21.8 | 42.44 | 10.10 |
| Machine operators, cellulose..... | 22 | 48.6 | 96.6 | 23.0 | 99.2 | 23.6 | 48.28 | 11.49 |
| Wood peelers..... | 1,650 | 44.8 | 101.4 | 24.1 | 90.2 | 21.5 | 46.26 | 11.01 |
| Assistants, unskilled, male..... | 2,132 | 44.8 | 106.4 | 25.3 | 87.5 | 20.8 | 48.90 | 11.64 |
| Female employees..... | 3,275 | 41.7 | 62.7 | 14.9 | 59.1 | 14.1 | 26.19 | 6.23 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 279.² Including overtime.

In Table 24 are presented the average agreement hourly wage rates for workers in the paper-making and paper-goods branches of the industry which were in effect on April 1, 1929, 1930, and 1931.

TABLE 24.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE PAPER INDUSTRY OF GERMANY, APRIL 1, 1929, 1930, AND 1931¹

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Occupation or class of workers | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|--------------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Paper-machine operators..... | 89.4 | 21.3 | 93.5 | 22.3 | 87.8 | 20.9 |
| Yard workers..... | 69.9 | 16.6 | 73.2 | 17.4 | 68.8 | 16.4 |
| Female workers..... | 47.2 | 11.2 | 49.6 | 11.8 | 46.4 | 11.0 |
| Account books and envelopes: | | | | | | |
| Skilled workers, male..... | 110.6 | 26.3 | 115.7 | 27.5 | 108.4 | 25.8 |
| Skilled workers, female..... | 63.5 | 15.1 | 66.6 | 15.9 | 62.4 | 14.9 |
| Semiskilled workers..... | 99.2 | 23.6 | 103.9 | 24.7 | 97.1 | 23.1 |
| Helpers..... | 79.0 | 18.8 | 82.5 | 19.6 | 77.4 | 18.4 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 288.

TABLE 24.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE PAPER INDUSTRY OF GERMANY, APRIL 1, 1929, 1930, AND 1931—Continued

| Occupation or class of workers | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|--------------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| Bookbinding on a large scale: | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Skilled workers, male..... | 119.8 | 28.5 | 125.4 | 29.8 | 117.9 | 28.1 |
| Skilled workers, female..... | 72.0 | 17.1 | 75.4 | 17.9 | 70.7 | 16.8 |
| Printing and binding: | | | | | | |
| Skilled workers, male..... | 108.7 | 25.9 | 112.7 | 26.8 | 105.7 | 25.2 |
| Skilled workers, female..... | 64.6 | 15.4 | 66.8 | 15.9 | 62.7 | 14.9 |
| Cardboard boxes: | | | | | | |
| Skilled workers, male..... | 100.0 | 23.8 | 105.1 | 25.0 | 97.6 | 23.2 |
| Skilled workers, female..... | 62.6 | 14.9 | 66.1 | 15.7 | 61.4 | 14.6 |
| Helpers, male..... | 84.4 | 20.1 | 89.4 | 21.3 | 83.0 | 19.8 |
| Helpers, female..... | 51.5 | 12.3 | 54.7 | 13.0 | 50.8 | 12.1 |
| All branches: | | | | | | |
| Skilled workers, male..... | 110.5 | 26.3 | 115.5 | 27.5 | 108.2 | 25.8 |
| Skilled workers, female..... | 64.9 | 15.4 | 68.0 | 16.2 | 63.7 | 15.2 |
| Helpers, male..... | 82.2 | 19.6 | 86.7 | 20.6 | 80.8 | 19.2 |
| Helpers, female..... | 51.5 | 12.3 | 54.7 | 13.0 | 50.8 | 12.1 |

In western Rhineland rag cutters, rag thrashers, straw-cooker chargers, and rag sorters are paid 2 pfennigs (0.48 cent) per hour extra because of the disagreeable nature of the work. Married workers having to support more than one child are entitled to an increase of 10 per cent of their hourly wage.

Under the national emergency decree of December 8, 1931, the wage rates in this industry in central Germany were reduced 15 per cent, effective January 1, 1932.

In western Rhineland overtime is compensated by an increase in wages as follows: 20 per cent from the forty-ninth to the fifty-fourth hour and 25 per cent after the fifty-fourth hour. Sunday work is paid 50 per cent extra, and work on Christmas, Easter, and Whitsuntide 100 per cent extra.

All workers in this district are granted leave of absence as follows: After 1 year of service, 3 days; after 2 years, 4 days; after 3 years, 5 days; after 4 years, 6 days; after 5 years, 7 days; after 8 years, 8 days; and after 10 years, 9 days.

Printing Trades ⁶

Table 25 shows the actual earnings and hours of labor of 46,212 workers in the printing trades in Germany in June, 1929, as shown by an investigation made by the Federal Statistical Office.

⁶ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, pp. 277, 289.

TABLE 25.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE PRINTING TRADES IN GERMANY, JUNE, 1929

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

| Occupation | Number of workers | Average working hours per week | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings | |
|--------------------------|-------------------|--------------------------------|-------------------------|------------------------|---|------------------------|-------------------------|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | | | Pfennigs | Cents | Pfennigs | Cents | Marks | |
| Hand compositors..... | 13, 806 | 47. 6 | 133. 7 | 31. 8 | 118. 3 | 28. 2 | 65. 69 | \$15. 63 |
| Machine compositors..... | 5, 103 | 47. 9 | 170. 4 | 40. 6 | 141. 1 | 33. 6 | 89. 79 | 21. 37 |
| Pressmen..... | 5, 569 | 47. 7 | 139. 2 | 33. 1 | 119. 0 | 28. 3 | 68. 13 | 16. 21 |
| Newspaper pressmen..... | 1, 493 | 49. 8 | 155. 8 | 37. 1 | 119. 9 | 28. 5 | 95. 00 | 22. 61 |
| Stereotypers..... | 1, 447 | 48. 7 | 164. 0 | 39. 0 | 119. 5 | 28. 4 | 89. 81 | 21. 37 |
| Helpers..... | 6, 193 | 48. 3 | 114. 5 | 27. 3 | 103. 7 | 24. 7 | 63. 35 | 15. 08 |
| Helpers, female..... | 2, 536 | 46. 2 | 63. 4 | 15. 1 | 57. 5 | 13. 7 | 29. 76 | 7. 08 |
| Feeders, female..... | 4, 177 | 46. 8 | 73. 4 | 17. 5 | 69. 7 | 16. 6 | 34. 65 | 8. 25 |

An investigation of actual earnings and hours of labor of workers engaged in lithographic work in Germany in July, 1929, covering 14,251 workers, gave the following results:

TABLE 26.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN LITHOGRAPHIC WORK IN GERMANY, JULY, 1929

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

| Occupation | Number of workers | Average working hours per week | Average hourly earnings | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings | |
|--------------------------------|-------------------|--------------------------------|-------------------------|------------------------|---|------------------------|-------------------------|------------------------|
| | | | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | | | Pfennigs | Cents | Pfennigs | Cents | Marks | |
| Workers on flat-bed press..... | 2, 647 | 47. 4 | 131. 3 | 31. 2 | ----- | ----- | 63. 03 | \$15. 00 |
| Workers on offset press..... | 1, 214 | 47. 9 | 156. 1 | 37. 2 | ----- | ----- | 76. 86 | 18. 29 |
| Lithographers..... | 1, 542 | 47. 0 | 138. 3 | 32. 9 | ----- | ----- | 65. 56 | 15. 60 |
| Stone polishers..... | 582 | 48. 1 | 107. 1 | 25. 5 | 102. 3 | 24. 3 | 52. 01 | 12. 38 |
| Other workers, male..... | 887 | 49. 2 | 101. 6 | 24. 2 | 95. 5 | 22. 7 | 51. 67 | 12. 30 |
| Feeders, female..... | 1, 597 | 46. 6 | 67. 6 | 16. 1 | 66. 0 | 15. 7 | 31. 90 | 7. 59 |
| Delivery tenders, female..... | 1, 094 | 46. 8 | 60. 4 | 14. 4 | 59. 0 | 14. 0 | 28. 69 | 6. 83 |
| Other workers, female..... | 1, 366 | 46. 6 | 55. 9 | 13. 3 | 53. 1 | 12. 6 | 27. 01 | 6. 43 |

Agreement wage rates in effect in the printing trades on April 1, 1929, 1930, and 1931, were, on the average, as shown in Table 27.

TABLE 27.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE PRINTING TRADES IN GERMANY, APRIL 1, 1929, 1930, AND 1931

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

| Occupation | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|--|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | Pfennigs | Cents | Pfennigs | Cents | Pfennigs | Cents |
| Hand compositors..... | 117. 3 | 27. 9 | 117. 3 | 27. 9 | 110. 3 | 26. 3 |
| Helpers..... | 103. 3 | 24. 6 | 103. 3 | 24. 6 | 96. 7 | 23. 0 |
| Feeders and other helpers, female..... | 64. 2 | 15. 3 | 64. 2 | 15. 3 | 60. 4 | 14. 4 |

Under the national emergency decree of December 8, 1931, wage rates in the printing industry were reduced 15 per cent, effective January 1, 1932.

Rubber Industry, Cologne

Wages in this industry are paid according to the age and sex of the worker and the type of the work performed. Where piecework rates are used actual earnings must be 15 per cent greater than the wages set forth herein. The following are the basic hourly wage rates for adult workers:

| | Pfennigs |
|------------------------------|-------------------|
| Male workers: | |
| Unskilled workers..... | 77.0 (18.3 cents) |
| Semiskilled workers..... | 78.5 (18.7 cents) |
| Semiskilled specialists..... | 79.5 (18.9 cents) |
| Specialists..... | 80.0 (19.0 cents) |
| Female workers: | |
| Unskilled workers..... | 50.5 (12.0 cents) |
| Semiskilled workers..... | 51.5 (12.3 cents) |
| Semiskilled specialists..... | 52.5 (12.5 cents) |
| Specialists..... | 56.0 (13.3 cents) |

Wages must be paid each week, and in no case later than on Friday. Special allowances of from 1 to 2 pfennigs (0.24 to 0.48 cent) per hour are made for work detrimental to the health of the worker.

Married workers are entitled to a family allowance of 114 pfennigs (27.1 cents) per week for wife and each child. Female workers who are self-supporting are entitled to an hourly allowance of 4 pfennigs (1 cent). Foremen, in their first year of service as such, receive an allowance of 4.5 pfennigs (1.1 cents) per hour, in their second year of service, 5.5 pfennigs (1.3 cents) per hour, and after two years' service, 7.5 pfennigs (1.8 cents) per hour.

The normal working time in the rubber industry—8 hours per day or 48 hours per week—may, in case of necessity, be increased to 9 hours per day or 54 hours per week.

Overtime—i. e., all time over 8 hours per day—is paid for at the rate of time and a quarter and Sunday work at the rate of time and a half. Double time is paid for work done on Christmas, Easter, and the Pentecostal holidays.

All workers under 20 years of age are entitled to four days' leave of absence with pay during a calendar year. Workers over 20 years of age are entitled to leave of absence with pay according to the following schedule: 1 and 2 years' service, 4 days; 3 years' service, 5 days; 4 years' service, 6 days; 5 years' service, 7 days; 6 years' service, 8 days; 7 years' service, 9 days; 8 years' service, 10 days; 9 years' service, 11 days; 10 years' service, 12 days.

Shipbuilding, Hamburg District

The general basic hourly rates in the Hamburg district for adult workers in the shipbuilding industry are as follows, lower wages being paid, by age groups, to workers under 20 years of age:

TABLE 28.—BASIC HOURLY WAGE RATES IN THE SHIPBUILDING INDUSTRY IN THE HAMBURG DISTRICT OF GERMANY

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Class of workers | Hamburg | | North Sea ship-yards | | Baltic Sea ship-yards | |
|-----------------------------|-----------------|------------------------|----------------------|------------------------|-----------------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Unskilled laborers..... | 72-76 | 17.1-18.1 | 66-69 | 15.7-16.4 | 66-69 | 15.7-16.4 |
| Partly skilled workers..... | 81-85 | 19.3-20.2 | 74-78 | 17.6-18.6 | 73-77 | 17.4-18.3 |
| Skilled workers..... | 88-92 | 20.9-21.9 | 81-85 | 19.3-20.2 | 80-84 | 19.0-20.0 |

Skilled workers in Hamburg shipyards receive an additional "production payment" (bonus) of 3 pfennigs (0.7 cent) per hour. Only male workers are employed.

All married workers receive 1 pfennig (0.24 cent) extra per hour and 2 pfennigs (0.48 cent) extra per hour for each minor child until it has finished public school.

Piecework is paid for at rates which permit the workers to earn from 20 to 25 per cent more than the hourly time rate. It is said that 95 per cent of all work in the shipyards is piecework.

Overtime is paid for at the regular rate plus 25 per cent for the first two hours and 40 per cent thereafter. All overtime on Sundays or holidays is paid for at 50 per cent over the regular rates.

A vacation of six days per annum is granted each worker and is paid for in advance.

Soap Industry, Rhenish Westphalia

The wage rates vary according to the age and sex of the worker, and according to locality groups based on relative cost of living. When piecework is done, the minimum earnings per hour must be at least 20 per cent in excess of the normal basic time rate per hour.

The following are the basic wage rates per hour paid to adult workers:

TABLE 29.—BASIC HOURLY WAGE RATES IN THE SOAP INDUSTRY OF RHENISH WESTPHALIA, GERMANY

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Locality group | Male workers | | Female workers | |
|----------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Group I..... | 80 | 19.0 | 56 | 13.3 |
| Group II..... | 75 | 17.9 | 53 | 12.6 |
| Group III..... | 65 | 15.5 | 46 | 10.9 |
| Group IV..... | 64 | 15.2 | 45 | 10.7 |

The normal working time in the soap industry in this district is 8 hours per day and 48 hours per week. However, with the consent of the labor unions, employers may increase this working time to 9 or 10 hours per day.

Overtime, i. e., all work in excess of 8 hours per day, is paid for at the rate of time and a quarter. Sunday work is paid for at the rate of time and a half, work on Christmas, Easter, and Whitsuntide at the rate of double time, and work on other holidays at the rate of time and a half.

Leave of absence with pay is granted to all employees on the following basis: All workers under 20 years of age are entitled to 4 days' leave with pay per year. Workers over 20 years of age are entitled to a certain number of working days off, with pay, each year, the number varying with the period of service, as follows: 1 year of service, 4 days; 2 years, 4 days; 3 years, 5 days; 4 years, 6 days; 5 years, 7 days; 6 years, 8 days; 7 years, 9 days; 8 years, 10 days; 9 years, 11 days; and 10 years, 12 days.

Each married worker is entitled to a family allowance of 2 pfennigs per hour (0.5 cent) for his wife and each minor dependent child.

Sugar Industry

The following basic hourly wage rates are paid to adult workers in the sugar industry; younger workers are paid lower rates according to age groups:

| | Pfennigs |
|------------------------|-------------------------|
| Unskilled workers..... | 72 (17.1 cents) |
| Hand workers..... | 81-85 (19.3-20.2 cents) |
| Female workers..... | 45 (10.7 cents) |

Foremen are paid 10 per cent more than the regular wage rates of their respective groups.

Family allowances are paid to heads of households of 1 mark (23.8 cents) per week for every child under 14 years of age and 1 mark per week for wife or invalid husband.

Allowances in kind are granted to regular workers of at least one year's continuous service as follows: Unmarried workers, 10 pounds of sugar per month; married workers, 20 pounds of sugar per month.

For overtime work an additional 25 per cent of the wage rate is paid on week days and for work on Sundays and holidays 50 per cent additional.

Leave of absence with pay is granted to all employees over 18 years of age who have served for at least 1 year under the same management, according to the following schedule: From 1 to 2 years' service, 3 days; from 3 to 4 years' service, 5 days; after 4 years' service, 6 days.

Textile Industry

Table 30 shows the results of an investigation of wages and hours in the textile industry in Germany, made by the German Federal Statistical Office, covering 55,795 textile workers employed in 466 establishments in 121 localities in September, 1930.⁷

⁷ Germany. Statistisches Reichsamt. Wirtschaft und Statistik, Berlin, June 2, 1931, pp. 459-462. See Labor Review for October, 1931 (p. 189), for report of investigation by the German Union of Textile Workers of actual earnings of workers in the industry from December, 1929, to May, 1931.

TABLE 30.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS OF SPINNERS AND WEAVERS IN GERMANY, 1930

[Conversions into United States currency on basis of mark=23.8 cents, pfennig=0.238 cent]

| Occupations, sex, and age | Number of workers | Average working hours per week | Average hourly earnings | | | | Agreement hourly wage or wage on piece-rate basis | | Average weekly earnings | |
|----------------------------|-------------------|--------------------------------|-------------------------|----------------|----------------------|----------------|---|----------------|-------------------------|----------------|
| | | | Including allowances | | Excluding allowances | | | | | |
| | | | German currency | U. S. currency | German currency | U. S. currency | German currency | U. S. currency | German currency | U. S. currency |
| Spinners: | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Male..... | 2,002 | 42.51 | 92.1 | 21.9 | 90.9 | 21.6 | 80.5 | 19.2 | 39.14 | \$9.32 |
| Female..... | 7,400 | 40.74 | 60.7 | 14.4 | 60.3 | 14.4 | 53.3 | 12.7 | 24.73 | 5.89 |
| Weavers: ¹ | | | | | | | | | | |
| Male..... | 22,182 | 43.60 | 93.9 | 22.3 | 92.3 | 22.0 | 73.1 | 17.4 | 40.94 | 9.74 |
| Female..... | 13,423 | 41.59 | 71.7 | 17.1 | 70.5 | 16.8 | 60.7 | 14.4 | 29.57 | 7.04 |
| Assistants: | | | | | | | | | | |
| Male, over 20 years..... | 5,321 | 45.41 | 70.0 | 16.7 | 68.9 | 16.4 | 62.8 | 14.9 | 31.80 | 7.57 |
| Female, over 20 years..... | 5,467 | 43.04 | 51.3 | 12.2 | 50.9 | 12.1 | 46.8 | 11.1 | 22.06 | 5.25 |

¹ Including frame workers and twist hands.

Table 31, from the same study, shows the number of workers covered, the average number of hours worked per week, the average hourly earnings, the average agreement wages per hour, and the average weekly earnings in each of the 10 branches of the textile industry investigated.

TABLE 31.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE TEXTILE INDUSTRY IN GERMANY, SEPTEMBER, 1930

[Conversions into United States currency on basis of mark=23.8 cents, pfennig=0.238 cent]

| Branch of industry, occupation, and sex | Number of work- ers | Aver- age work- ing hours per week | Average hourly earnings | | Agreement hour- ly wage or wage on piece-rate basis | | Average weekly earnings | |
|--|---------------------------|--|----------------------------|-----------------------------------|---|-----------------------------------|-------------------------------|-----------------------------------|
| | | | German currency | United States cur- rency | German currency | United States cur- rency | Ger- man cur- rency | United States cur- rency |
| <i>Cotton</i> | | | | | | | | |
| Spinners: | | | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Male..... | 942 | 40.14 | 87.9 | 20.9 | 78.2 | 18.6 | 35.75 | \$8.51 |
| Female..... | 4,782 | 40.53 | 61.9 | 14.7 | 54.4 | 12.9 | 25.26 | 6.01 |
| Weavers: | | | | | | | | |
| Male..... | 6,766 | 41.92 | 80.6 | 19.2 | 69.7 | 16.6 | 34.29 | 8.16 |
| Female..... | 6,574 | 41.39 | 68.2 | 16.2 | 61.2 | 14.6 | 28.42 | 6.76 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 2,738 | 44.13 | 66.4 | 15.8 | 61.3 | 14.6 | 29.69 | 7.07 |
| Female, over 20 years..... | 2,139 | 42.55 | 48.9 | 11.6 | 45.6 | 10.9 | 20.98 | 4.99 |
| <i>Worsted spinning</i> | | | | | | | | |
| Spinners: | | | | | | | | |
| Male..... | 673 | 45.58 | 96.2 | 22.9 | 87.2 | 20.8 | 44.18 | 10.51 |
| Female..... | 1,174 | 42.39 | 57.3 | 13.6 | 53.1 | 12.6 | 24.50 | 5.83 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 646 | 48.92 | 70.7 | 16.8 | 63.2 | 15.0 | 35.03 | 8.34 |
| Female, over 20 years..... | 403 | 46.98 | 46.6 | 11.1 | 43.9 | 10.4 | 22.15 | 5.27 |
| <i>Wool</i> | | | | | | | | |
| Spinners: | | | | | | | | |
| Male..... | 387 | 42.93 | 88.0 | 20.9 | 73.4 | 17.5 | 38.61 | 9.19 |
| Female..... | 721 | 45.64 | 54.2 | 12.9 | 49.7 | 11.8 | 24.98 | 5.95 |
| Weavers: | | | | | | | | |
| Male..... | 9,085 | 44.73 | 93.7 | 22.3 | 73.0 | 17.4 | 42.26 | 10.06 |
| Female..... | 2,788 | 43.98 | 77.0 | 18.3 | 63.0 | 15.0 | 34.01 | 8.09 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 930 | 49.07 | 73.3 | 17.4 | 66.9 | 15.9 | 36.73 | 8.74 |
| Female, over 20 years..... | 1,137 | 45.84 | 55.0 | 13.1 | 50.5 | 12.0 | 25.38 | 6.04 |

TABLE 31.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE TEXTILE INDUSTRY IN GERMANY, SEPTEMBER, 1930—Continued

| Branch of industry, occupation, and sex | Num- ber of work- ers | Aver- age work- ing hours per week | Average hourly earnings | | Agreement hour- ly wage or wage on piece-rate basis | | Average weekly earnings | |
|--|--------------------------------|--|----------------------------|-----------------------------------|---|-----------------------------------|-------------------------------|-----------------------------------|
| | | | German currency | United States cur- rency | German currency | United States cur- rency | Ger- man cur- rency | United States cur- rency |
| <i>Linen</i> | | | | | | | | |
| Spinners, female..... | 723 | 34.57 | <i>Pfennigs</i> 61.3 | <i>Cents</i> 14.6 | <i>Pfennigs</i> 50.0 | <i>Cents</i> 11.9 | <i>Marks</i> 21.31 | \$5.07 |
| Weavers: | | | | | | | | |
| Male..... | 733 | 36.64 | 74.6 | 17.8 | 66.8 | 15.9 | 27.41 | 6.52 |
| Female..... | 1,270 | 36.89 | 59.3 | 14.1 | 54.2 | 12.9 | 21.92 | 5.22 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 446 | 41.18 | 67.3 | 16.0 | 60.1 | 14.3 | 28.18 | 6.71 |
| Female, over 20 years..... | 425 | 35.67 | 40.4 | 11.8 | 44.1 | 10.5 | 17.70 | 4.21 |
| <i>Ribbon weaving</i> | | | | | | | | |
| Weavers: | | | | | | | | |
| Male..... | 990 | 45.99 | 101.0 | 24.0 | 79.6 | 18.9 | 48.77 | 11.61 |
| Female..... | 26 | 45.12 | 74.8 | 17.8 | 60.5 | 14.4 | 34.18 | 8.13 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 46 | 43.75 | 72.5 | 17.3 | 63.4 | 15.1 | 32.56 | 7.75 |
| Female, over 20 years..... | 328 | 45.68 | 50.3 | 12.0 | 48.3 | 11.5 | 23.15 | 5.51 |
| <i>Hosiery</i> | | | | | | | | |
| Frame workers: | | | | | | | | |
| Male..... | 1,554 | 47.32 | 113.7 | 27.1 | 74.7 | 17.8 | 55.13 | 13.12 |
| Female..... | 288 | 43.46 | 63.4 | 15.1 | 44.8 | 10.7 | 27.66 | 6.58 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 17 | 49.90 | 67.3 | 16.0 | 58.4 | 13.9 | 33.68 | 8.02 |
| Female, over 20 years..... | 99 | 43.53 | 49.1 | 11.7 | 41.0 | 9.8 | 21.51 | 5.12 |
| <i>Knit goods</i> | | | | | | | | |
| Frame workers: | | | | | | | | |
| Male..... | 591 | 43.93 | 107.7 | 25.6 | 73.7 | 17.5 | 47.65 | 11.34 |
| Female..... | 596 | 40.90 | 64.6 | 15.4 | 50.7 | 12.1 | 27.28 | 6.49 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 284 | 46.51 | 74.2 | 17.7 | 64.2 | 15.3 | 34.81 | 8.28 |
| Female, over 20 years..... | 535 | 41.44 | 53.1 | 12.6 | 46.9 | 11.2 | 22.21 | 5.29 |
| <i>Lace making</i> | | | | | | | | |
| Twist hands: | | | | | | | | |
| Male..... | 430 | 29.02 | 124.3 | 29.6 | 85.6 | 20.4 | 36.47 | 8.68 |
| Female..... | 116 | 29.05 | 65.1 | 15.5 | 56.2 | 13.4 | 18.90 | 4.50 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 60 | 40.38 | 67.2 | 16.0 | 63.5 | 15.1 | 20.69 | 4.92 |
| Female, over 20 years..... | 220 | 36.92 | 47.7 | 11.4 | 44.6 | 10.6 | 17.65 | 4.20 |
| <i>Velvet weaving</i> | | | | | | | | |
| Weavers, male..... | 1,031 | 45.44 | 106.1 | 25.3 | 87.0 | 20.7 | 50.58 | 12.04 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 30 | 42.67 | 62.2 | 14.8 | 66.0 | 15.7 | 27.00 | 6.43 |
| Female, over 20 years..... | 11 | 44.43 | 54.0 | 12.9 | 53.5 | 12.7 | 24.18 | 5.75 |
| <i>Silk weaving</i> | | | | | | | | |
| Weavers: | | | | | | | | |
| Male..... | 1,002 | 45.89 | 89.2 | 21.2 | 71.6 | 17.0 | 42.06 | 10.01 |
| Female..... | 1,765 | 42.67 | 78.7 | 18.7 | 65.3 | 15.5 | 34.03 | 8.10 |
| Assistants: | | | | | | | | |
| Male, over 20 years..... | 124 | 48.56 | 72.7 | 17.3 | 65.0 | 15.5 | 36.74 | 8.74 |
| Female, over 20 years..... | 170 | 47.03 | 58.0 | 13.8 | 50.7 | 12.1 | 27.67 | 6.59 |

In the textile industry the average hourly wage rates paid under agreements in effect on April 1, 1929, 1930, and 1931 were as follows:

TABLE 32.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE TEXTILE INDUSTRY, APRIL 1, 1929, 1930, AND 1931¹

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Branch of industry, occupation, and sex of worker | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|---|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | Pfennigs | Cents | Pfennigs | Cents | Pfennigs | Cents |
| Worsteds spinning: | | | | | | |
| Spinners, male | 78.8 | 18.8 | 86.2 | 20.5 | 83.0 | 19.8 |
| Spinners, female | 51.3 | 12.2 | 55.9 | 13.3 | 53.9 | 12.8 |
| Weavers, male | 77.9 | 18.5 | 80.9 | 19.3 | 76.3 | 18.2 |
| Weavers, female | 59.9 | 14.3 | 62.3 | 14.8 | 58.5 | 13.9 |
| Assistants, male | 62.6 | 14.9 | 66.0 | 15.7 | 63.3 | 15.1 |
| Assistants, female | 44.5 | 10.6 | 48.0 | 11.4 | 46.3 | 11.0 |
| Wool: | | | | | | |
| Spinners, male | 77.7 | 18.5 | 79.6 | 18.9 | 75.0 | 17.9 |
| Spinners, female | 51.2 | 12.2 | 52.6 | 12.5 | 49.9 | 11.9 |
| Weavers, male | 70.9 | 16.9 | 72.6 | 17.3 | 68.7 | 16.4 |
| Weavers, female | 61.9 | 14.7 | 63.1 | 15.0 | 59.8 | 14.2 |
| Assistants, male | 62.7 | 14.9 | 64.0 | 15.2 | 61.0 | 14.5 |
| Assistants, female | 48.4 | 11.5 | 49.5 | 11.8 | 46.9 | 11.2 |
| Cotton: | | | | | | |
| Spinners, male | 79.9 | 19.0 | 80.9 | 19.3 | 76.1 | 18.1 |
| Spinners, female | 53.8 | 12.8 | 54.4 | 12.9 | 51.2 | 12.2 |
| Weavers, male | 74.3 | 17.7 | 75.2 | 17.9 | 70.6 | 16.8 |
| Weavers, female | 62.4 | 14.9 | 63.3 | 15.1 | 59.6 | 14.2 |
| Assistants, male | 61.9 | 14.7 | 62.6 | 14.9 | 59.1 | 14.1 |
| Assistants, female | 46.7 | 11.1 | 47.2 | 11.2 | 44.7 | 10.6 |
| Linen: | | | | | | |
| Spinners, female | 53.4 | 12.7 | 55.0 | 13.1 | 51.2 | 12.2 |
| Hacklers and weavers, male | 69.7 | 16.6 | 72.7 | 17.3 | 68.1 | 16.2 |
| Hacklers and weavers, female | 53.4 | 12.7 | 55.7 | 13.3 | 52.4 | 12.5 |
| Assistants, male | 57.8 | 13.8 | 60.0 | 14.3 | 56.2 | 13.4 |
| Assistants, female | 42.8 | 10.2 | 54.5 | 13.0 | 42.0 | 10.0 |
| Silk weaving: | | | | | | |
| Weavers, male | 72.2 | 17.2 | 73.1 | 17.4 | 69.0 | 16.4 |
| Weavers, female | 63.3 | 15.1 | 64.1 | 15.3 | 60.3 | 14.4 |
| Assistants, male | 67.2 | 16.0 | 63.0 | 15.0 | 64.2 | 15.3 |
| Assistants, female | 51.1 | 12.2 | 51.7 | 12.3 | 48.7 | 11.6 |
| Velvet weaving: | | | | | | |
| Weavers, male | 94.7 | 22.5 | 98.9 | 23.5 | 87.0 | 20.7 |
| Weavers, female | 66.7 | 15.9 | 66.7 | 15.9 | 62.8 | 14.9 |
| Helpers, male | 76.8 | 18.3 | 80.5 | 19.2 | 75.6 | 18.0 |
| Helpers, female | 50.9 | 12.1 | 53.1 | 12.6 | 51.5 | 12.3 |
| Ribbon weaving: | | | | | | |
| Weavers, male | 78.9 | 18.8 | 79.8 | 19.0 | 75.4 | 17.9 |
| Weavers, female | 59.6 | 14.2 | 60.6 | 14.4 | 56.7 | 13.5 |
| Assistants, male | 66.8 | 15.9 | 67.6 | 16.1 | 63.8 | 15.2 |
| Assistants, female | 50.1 | 11.9 | 51.1 | 12.2 | 47.6 | 11.3 |
| Lace making: | | | | | | |
| Weavers, male | 85.6 | 20.4 | 85.6 | 20.4 | 80.5 | 19.2 |
| Assistants, male | 63.5 | 15.1 | 63.5 | 15.1 | 59.7 | 14.2 |
| Assistants, female | 44.6 | 10.6 | 44.6 | 10.6 | 42.4 | 10.1 |
| Hosiery: | | | | | | |
| Knitters, male | 76.4 | 18.2 | 76.7 | 18.3 | 72.7 | 17.3 |
| Knitters, female | 52.8 | 12.6 | 53.1 | 12.6 | 50.8 | 12.1 |
| Assistants, male | 63.1 | 15.0 | 63.4 | 15.1 | 60.1 | 14.3 |
| Assistants, female | 45.6 | 10.9 | 45.8 | 10.9 | 43.8 | 10.4 |
| All branches: | | | | | | |
| Spinners and weavers, male | 74.6 | 17.8 | 76.0 | 18.1 | 71.8 | 17.1 |
| Spinners and weavers, female | 57.5 | 13.7 | 58.7 | 14.0 | 55.6 | 13.2 |
| Assistants, male | 62.1 | 14.8 | 63.5 | 15.1 | 60.2 | 14.3 |
| Assistants, female | 46.5 | 11.1 | 47.4 | 11.3 | 45.0 | 10.7 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 290.

Under the national emergency decree of December 8, 1932, wage rates in the textile industry in central Germany were reduced 15 per cent.

For overtime, 25 per cent extra and for Sunday and holiday work 50 per cent extra are generally paid, while in some districts work on Christmas, Easter, and Whitsunday is paid for at the rate of 100 per cent extra. In some places six days' leave of absence per year with pay is granted to workers.

Vegetable Oil Mills, Hamburg

These oil mills are located in Harburg, across the Elbe River from the city of Hamburg and are actually located within the Bremen consular district, but they are generally regarded as a part of the industries of the port of Hamburg.

The basic hourly wage rates in effect in these mills are as follows:

| | Marks |
|-----------------------------|-------------------|
| Yard laborers..... | 0.97 (23.1 cents) |
| Factory laborers..... | 0.98 (23.3 cents) |
| Operators of presses..... | 0.99 (23.6 cents) |
| Machinists and firemen..... | 1.07 (25.5 cents) |
| Female workers..... | 0.65 (15.5 cents) |
| Skilled workers..... | 1.28 (30.5 cents) |
| Semiskilled workers..... | 1.11 (26.4 cents) |

In some cases firemen also receive an additional payment up to 5.4 per cent of the amount stated. Machinists' wages, including bonuses, amount to 1.34 marks (31.9 cents) per hour for first-class machinists and 1.28 marks (30.5 cents) for second-class machinists.

Piecework is paid for at about 5.4 per cent above the time-work rate. For dangerous, unhealthful, or particularly dirty work, extra wages are paid by agreement.

Overtime is paid for at a 25 per cent increase over the regular rates. Work on Sundays and holidays (except Christmas, Easter, and Ascension Day) is paid for at 50 per cent increase, and work on Christmas, Easter, and Ascension Day double the regular rates.

A vacation of from 4 to 12 days, according to length of service, is granted each worker, with payment of 50 per cent in advance.

Woodworking Industry

Table 33 shows the actual hourly and weekly earnings, and the hours of labor of adult workers in the woodworking industry in Germany, as shown by a study made by the Federal Statistical Office. This study covered 23,752 workers in 1,262 establishments; among these were 1,195 establishments, with 21,442 male workers, engaged in general woodworking and furniture making, and 67 establishments, with 2,310 workers, engaged in musical-instrument manufacture.

TABLE 33.—AVERAGE ACTUAL EARNINGS IN THE WOODWORKING INDUSTRY OF GERMANY, MARCH, 1931¹

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

| Industry group and class of workers | Average working hours per week | Hourly earnings ² | | Weekly net earnings | |
|--------------------------------------|--------------------------------|------------------------------|------------------------|---------------------|------------------------|
| | | German currency | United States currency | German currency | United States currency |
| <i>Woodworking and furniture</i> | | | | | |
| Skilled workers: | | <i>Pfennigs</i> | <i>Cents</i> | <i>Marks</i> | |
| Time work | 39.63 | 117.3 | 27.9 | 46.49 | \$11.06 |
| Piece work | 40.43 | 120.8 | 28.8 | 48.85 | 11.63 |
| Semiskilled workers: | | | | | |
| Time work | 40.62 | 91.9 | 21.9 | 37.34 | 8.89 |
| Piece work | 40.70 | 90.6 | 21.6 | 36.89 | 8.78 |
| Unskilled workers, time work | 41.08 | 89.1 | 21.2 | 36.59 | 8.71 |
| <i>Musical instruments</i> | | | | | |
| Male workers: | | | | | |
| Skilled workers— | | | | | |
| Time work | 39.8 | 122.6 | 29.2 | 48.83 | 11.62 |
| Piece work | 34.7 | 126.0 | 30.0 | 43.70 | 10.40 |
| Semiskilled workers, time work | 38.2 | 95.9 | 22.8 | 36.59 | 8.71 |
| Unskilled workers, time work | 40.2 | 98.0 | 23.3 | 39.39 | 9.37 |
| Female workers: | | | | | |
| Skilled workers, piece work | 29.2 | 74.9 | 17.8 | 21.88 | 5.20 |
| Semiskilled workers— | | | | | |
| Time work | 38.5 | 65.8 | 15.7 | 35.34 | 6.03 |
| Piece work | 34.7 | 67.6 | 16.1 | 23.48 | 5.59 |

¹ Data are from Germany, Statistisches Reichsamt, Wirtschaft und Statistik, Oct. 2, 1931, pp. 734-736.² Includes additional pay for overtime, night, Sunday, and holiday work, and for installation and repair work.

Table 34 shows average agreement wage rates in effect in the industry on April 1, 1929, 1930, and 1931.⁸

TABLE 34.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE WOODWORKING INDUSTRY, APRIL 1, 1929, 1930, AND 1931

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Class of workers | Apr. 1, 1929 | | Apr. 1, 1930 | | Apr. 1, 1931 | |
|---------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Skilled workers | 111.4 | 26.5 | 117.3 | 27.9 | 114.6 | 27.3 |
| Semiskilled workers | 101.3 | 24.1 | 104.9 | 25.0 | 102.5 | 24.4 |
| Helpers | 91.4 | 21.8 | 96.1 | 22.9 | 93.9 | 22.3 |

Under the national emergency decree of December 8, 1931, wage rates in this industry in central Germany were reduced 10 per cent, effective January 1, 1932.

In the woodworking industry in and around Cologne 25 per cent extra is paid for overtime work, 50 per cent extra for night work, and 100 per cent extra for Sunday and holiday work. Leave with pay is granted to all employees on the following basis: During first year of service and after at least 4 months' service, 4 days; after 2 years' service, 5 days; after 3 years' service, 7 days; after 4 years' service, 8 days.

⁸ Germany. Statistisches Reichsamt. Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 289.

Mining and Quarrying

Coal Mining

THE following two tables show the actual earnings of coal miners and lignite miners in Germany in January and July, 1930 and 1931, as reported by the mine operators' associations to the German Federal Statistical Office.⁹

TABLE 35.—ACTUAL EARNINGS OF COAL MINERS, JANUARY AND JULY, 1930 AND 1931

[Weighted averages for West Upper Silesia, Lower Silesia, Ruhr District, Aachen, and Saxony. Conversions into United States currency on basis of mark = 23.8 cents]

| Year and month | Earnings per shift | | | | | | | | | |
|----------------|---------------------|------------------------|--------------------------------|------------------------|-----------------|------------------------|---------------------|------------------------|-----------------|------------------------|
| | Underground workers | | | | Surface workers | | | | | |
| | Pick miners | | All others (excluding haulers) | | Adults, male | | Young workers, male | | Female workers | |
| | German currency | United States currency | German currency | United States currency | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| 1930: | <i>Marks</i> | | <i>Marks</i> | | <i>Marks</i> | | <i>Marks</i> | | <i>Marks</i> | |
| January..... | 9.97 | \$2.37 | 7.42 | \$1.77 | 7.63 | \$1.82 | 2.41 | \$0.57 | 3.45 | \$0.82 |
| July..... | 9.91 | 2.36 | 7.55 | 1.80 | 7.64 | 1.82 | 2.39 | .57 | 3.47 | .83 |
| 1931: | | | | | | | | | | |
| January..... | 9.25 | 2.20 | 7.17 | 1.71 | 7.24 | 1.72 | 2.28 | .54 | 3.29 | .78 |
| July..... | 9.14 | 2.18 | 7.09 | 1.69 | 7.15 | 1.70 | 2.22 | .53 | 3.45 | .82 |

TABLE 36.—ACTUAL EARNINGS OF LIGNITE MINERS IN GERMANY, JANUARY AND JULY, 1930 AND 1931

[Weighted averages for Middle-German Kernreviere I, Lower Lausitz, Middle-German Rondreviere, and East-Elba Rondreviere I and II. Conversions into United States currency on basis of mark = 23.8 cents]

| Year and month | Earnings per shift | | | | | | | | | |
|----------------|--------------------|------------------------|-----------------|------------------------|-----------------|------------------------|---------------------|------------------------|-----------------|------------------------|
| | Coal miners | | | | Laborers | | Young workers, male | | Female workers | |
| | Surface | | Underground | | | | | | | |
| | German currency | United States currency | German currency | United States currency | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| 1930: | <i>Marks</i> | | <i>Marks</i> | | <i>Marks</i> | | <i>Marks</i> | | <i>Marks</i> | |
| January..... | 8.43 | \$2.01 | 9.14 | \$2.18 | 8.01 | \$1.91 | 3.93 | \$0.94 | 4.16 | \$0.99 |
| July..... | 8.15 | 1.94 | 9.09 | 2.16 | 8.11 | 1.93 | 3.84 | .91 | 4.12 | .98 |
| 1931: | | | | | | | | | | |
| January..... | 8.04 | 1.91 | 8.72 | 2.08 | 7.98 | 1.90 | 3.71 | .88 | 4.15 | .99 |
| July..... | 7.80 | 1.86 | 8.46 | 2.01 | 7.44 | 1.77 | 3.47 | .83 | 3.89 | .93 |

The hourly wage rates shown in Table 37 are average agreement rates in the coal-mining industry in effect on April 1, 1929, 1930, and 1931.

⁹ Germany. Statistisches Reichsamt. Wirtschaft und Statistik, Oct. 1, 1931, pp. 698-700.

TABLE 37.—AVERAGE AGREEMENT HOURLY WAGE RATES IN COAL MINING, APRIL 1, 1929, 1930, AND 1931¹

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Date | Pick miners | | Surface workers, male ² | |
|-------------------|-----------------|------------------------|------------------------------------|------------------------|
| | German currency | United States currency | German currency | United States currency |
| | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Apr. 1, 1929..... | 118.3 | 28.2 | 74.3 | 17.7 |
| Apr. 1, 1930..... | 120.8 | 28.8 | 75.7 | 18.0 |
| Apr. 1, 1931..... | 113.9 | 27.1 | 71.5 | 17.0 |

¹ Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 284.² Excluding skilled workers.

Under the national emergency decree of December 8, 1931, the agreement wage rates in this industry in central Germany were reduced 15 per cent, effective January 1, 1932.

The general working hours for miners are 7 or 7½ per day, including the time required for entering and leaving the mine, and for surface workers, 8 per day. In some districts—for example, in Rhenish Westphalia and Upper Silesia—in mines where the temperature is 28° C. (82.4° F.) the shift period is 6 hours.

For work outside of regular working hours the following increases over the regular rate are generally paid: Overtime, 25 per cent; Sunday and holiday work, 50 per cent; work on Easter, Christmas, and Whitsuntide, 100 per cent.

After 1 year's service, 3 days' leave of absence with pay is usually granted, with an additional day for each succeeding year of service up to 9 days. In many cases underground workers are granted additional leave as follows: After 10 years' service, 10 days; after 15 years' service, 11 days; and after 20 years' service, 12 days.

An annual allowance of coal is given in many mines to workers who are married or the heads of households, while explosives to be used by miners in blasting are furnished at cost, and light, tools, and repairs to tools are furnished free. Family allowances are frequently paid, generally of 9 or 10 pfennigs per shift for wife and each dependent child.

Iron Mining, Siegerland

The average wage rate per shift for pickmen (*Hauer*) is 6.20 marks (\$1.48). The following are the basic wage rates per shift for various other workers over 23 years of age, lower rates being paid to younger workers according to their age groups:

| | Marks |
|---|---------------|
| Boiler attendants, elevator machinists, timber men, and locomotive drivers..... | 5.96 (\$1.42) |
| Machinists and firemen..... | 5.61 (\$1.34) |
| Unskilled laborers..... | 5.15 (\$1.23) |
| Female workers..... | 3.60 (\$0.86) |

Foremen are entitled to an increase of 11 pfennigs (2.6 cents) per shift over the rates for workers of their respective groups.

Main elevator machinists (*Hauptfördermaschinenisten*) are entitled to an increase of 11 pfennigs (2.6 cents) per shift over the rates for skilled workers.

A family allowance of 12 pfennigs (2.9 cents) per shift is paid to workers maintaining households for wife or head of household and for

each dependent child. Piecework rates must be so fixed that the worker of normal efficiency can earn a wage 5 per cent over the shift rate for his class.

The normal working time for underground mine workers is 7½ hours per day or shift, including time required for entering and leaving the mine and a half-hour lunch period. The normal working time for surface workers is 8 hours per day or shift.

Overtime work calls for increased pay as follows: On week days, 20 per cent increase for the first two hours and 30 per cent increase thereafter; on Sundays and legal holidays, 50 per cent increase.

Leave with pay is granted according to the following schedule: All employees having 1 year of service, 2 days; 2 years, 2 days; 3 years, 3 days; 4 years, 3 days; 5 years, 4 days; 10 years, 5 days. Mine workers only, after 10 years of service, receive a paid vacation of 6 days; after 15 years, 7 days; after 20 years, 8 days.

Copper Mining

Wages in copper mines in the Prussian Province of Saxony under the agreement of October 14, 1931, are shown in the following table. These wages were reduced 9 per cent commencing January 1, 1932.

TABLE 38.—BASIC WAGE RATE PER SHIFT IN COPPER MINES IN SAXONY, OCTOBER 14, 1931

[Conversions into United States currency on basis of mark = 23.8 cents]

| Occupation | Wage rate per shift | |
|---|---------------------|------------------------|
| | German currency | United States currency |
| 8-hour day | | |
| | Marks | |
| Miners (ore getters in opening of mine)..... | 6. 15 | \$1. 46 |
| Miners (preparatory and mining and timber work)..... | 5. 15 | 1. 23 |
| Car pushers and loaders, underground..... | 4. 80 | 1. 14 |
| Hangers-on, unloaders, and clinchers: | | |
| In main pits at drawing shaft..... | 4. 80 | 1. 14 |
| In main pits at side lodes and side deposits..... | 4. 35 | 1. 04 |
| Hangers-on, hoisters, unloaders, shunters and others doing underground hauling at inclined planes, at flat and blind pits: | | |
| At main hoisting points..... | 4. 55 | 1. 08 |
| At subsidiary hoisting points..... | 4. 35 | 1. 04 |
| Workers at pit head and in yards..... | 4. 45 | 1. 06 |
| Helpers, underground..... | 4. 35 | 1. 04 |
| Operators of main hoisting engines..... | 6. 10 | 1. 45 |
| Pumpmen at large pumping stations and stokers at main boilers..... | 5. 65 | 1. 34 |
| Locomotive drivers..... | 5. 15 | 1. 23 |
| Operators of large underground conveying and hoisting machinery..... | 4. 70 | 1. 12 |
| Pump men and operators of smaller machinery..... | 4. 35 | 1. 04 |
| Ore weighers..... | 5. 15 | 1. 23 |
| Chief and first sorters..... | 4. 50 | 1. 07 |
| Sorters and carriers..... | 4. 35 | 1. 04 |
| Supervisors of mining and hoisting work..... | 5. 65 | 1. 34 |
| Timekeepers..... | 5. 15 | 1. 23 |
| Distributors of dynamite..... | 5. 05 | 1. 20 |
| Roundsmen, trappers, and helpers..... | 4. 35 | 1. 04 |
| 9-hour day | | |
| Transport and cable operators in side lodes, machine operators at auxiliary hoists and main compressor plants, switchboard operators and coal and ash carriers..... | 4. 65-4. 85 | 1. 11-1. 15 |
| Engine and boiler men: | | |
| Stokers at auxiliary stations..... | 5. 15 | 1. 23 |
| Truck drivers..... | 4. 65-4. 85 | 1. 11-1. 15 |
| Coal unloaders..... | 4. 40 | 1. 05 |
| Operators at small engines..... | 4. 40 | 1. 05 |
| Mechanics..... | 4. 95-6. 10 | 1. 18-1. 45 |
| Ore loaders, tip-car operators..... | 5. 05 | 1. 20 |
| Work testers and weighers..... | 4. 75 | 1. 13 |
| Samplers and crushers, material distributors, watchmen, and porters..... | 4. 35 | 1. 04 |
| Mine watchmen, messengers, car oilers, and other helpers..... | 4. 35 | 1. 04 |
| Female workers..... | 2. 65 | . 63 |

Potash Industry, Central Germany

The following basic wage rates are paid in the potash industry in central Germany under an agreement effective from February 1, 1929:

TABLE 39.—BASIC WAGE RATE PER SHIFT IN THE POTASH INDUSTRY OF CENTRAL GERMANY, EFFECTIVE FEBRUARY 1, 1929

[Conversions into United States currency on basis of mark=23.8 cents]

| Occupation | Wage rate per shift | |
|--|---------------------|------------------------|
| | German currency | United States currency |
| <i>Underground workers¹</i> | | |
| Miners, hangers-on at main pits, hoisting engineers, carpenters, potash removers, blasting miners, grubbers, mechanics, removers..... | Marks 7.00 | \$1.67 |
| Transport workers, other hangers-on, trammers, carriers, rope and chain railway operators, machine operators, locomotive drivers, windlass operators, motor operators, brakemen, shunters, selectors, mill workers, washers and hand cogs, slide operators, electric truck drivers, line sweepers, track layers, distributors of explosives, railway and tip-car drivers..... | 6.20 | 1.48 |
| <i>Surface workers</i> | | |
| Hoisting machine engineers and hangers-on..... | 7.00 | 1.67 |
| Trammers and carriers and truck oilers..... | 5.80 | 1.38 |
| <i>Mill and factory²</i> | | |
| "Monitor" workers washing residue, workers at appliances for dissolving crude potash, dissolvers in Epsom and Glauber salt works, workers at bromide towers, and at potash-magnesia and sulphate boilers, and box cleaners..... | 6.20 | 1.48 |
| Mill and factory workers, bolting millers, workers at preheaters and vacuum apparatus, at suction filter and centrifugal machines, at clearing apparatus, at pumps, at residue washing plants, and at mud-preparing plants, chimney coolers, workers at decomposition plants and at evaporation plants, conveyor and elevator men, workers at drying-drum heaters, in kieserite preparation, at Epsom salt manufacture, at magnesium of chloride tubs, in Glauber salt works, in acid works, at lime kilns, in other chemical sections, at the scrapers, at cooling towers, and at drying drums, weighers, bag fillers, sewing-machine operators, bag markers, packers and loaders of bromide, operators of automatic punches and licking-stone presses, box cleaners, and workers in kieserite stone manufacture..... | 6.00 | 1.43 |
| Weighers at pits, carters, rope and chain car operators, car-service operators, whipper operators, loaders, workers in refrigerating room, case fillers and drawers, licking-stone makers, emptiers of Epsom salt tubs, sample takers, workers at mixing stations, unloaders, crude salt conveyor operators, spout cleaners, and car cleaners..... | 5.80 | 1.38 |
| <i>Auxiliary works³</i> | | |
| Skilled hand workers..... | 7.00 | 1.67 |
| Engineers at main engines, main switchboard men, locomotive drivers, truck drivers, and hoisting crane operators..... | 6.20 | 1.48 |
| Semiskilled hand workers, stokers, boiler feeders, boiler men, gang foremen, shunters, other engine operators, accumulator men, motormen, electric-car drivers, storekeepers, watchmen, gas-generator attendants, workers in tar purifying works, construction-work helpers, coal grinders, and gate keepers..... | 6.00 | 1.43 |
| Carters, coal unloaders, boiler cleaners, assistant machine operators, oilers, locomotive stokers, brakemen, track workers, safety-gate men, storeroom workers, laboratory assistants, yard workers, timekeepers, messengers, telephone operators, and pump men..... | 5.80 | 1.38 |
| <i>Females</i> | | |
| Workers over 20 years of age..... | 3.70 | .88 |

¹ 25 per cent increase for sinking a shaft and necessary construction work; 15 per cent increase for timbering and walling a shaft and laying cable in hoisting shafts.

² 20 per cent increase for work dangerous to health.

³ 5 per cent increase for heavy yard work.

Workers under 20 years are paid lower wages according to age groups.

For extraordinary and especially dirty work, such as cleaning of boilers, furnace flues, deep basins, and the like, but not box-cleaning, carrying of wet residues, etc., 10 per cent increase is paid.

Superintendents receive 15 per cent in addition, and foremen and chief firemen, 10 per cent.

Beside the shift wage there is granted a family allowance, including coal allowance, amounting to 30 pfennigs (7.14 cents) per shift and a children's allowance, amounting to 10 pfennigs (2.38 cents) per shift.

Under the emergency decree of December 8, 1931, the rates shown in the table were reduced 15 per cent, effective February 1, 1932.

Pumice-Stone Industry, Rhineland

Wages in this industry vary according to the age and sex of the worker and the type of work performed. When piecework is possible the minimum earnings per hour must be 20 per cent in excess of the basic hourly time rate.

Below are given the basic hourly wages for male workers in this industry:

| | Pfennigs |
|-----------------------------|-----------------|
| Teamsters and truckmen..... | 78 (18.6 cents) |
| Other male workers, aged— | |
| 14 to 15 years..... | 30 (7.1 cents) |
| 15 to 16 years..... | 33 (7.9 cents) |
| 16 to 17 years..... | 37 (8.8 cents) |
| 17 to 18 years..... | 48 (11.4 cents) |
| 18 to 19 years..... | 59 (14.0 cents) |
| 19 to 20 years..... | 67 (15.9 cents) |
| Over 20 years..... | 74 (17.6 cents) |

Female workers are entitled to 80 per cent of the above wages for the respective age classes.

Skilled workers receive 92 pfennigs (21.9 cents) per hour.

For overtime, time and a quarter is paid; for work on Sundays and legal holidays, time and a half; and for work on Easter, Whitsuntide, and the Christmas holidays, double time.

Regular employees are entitled to leave with pay, after specified periods of continuous service, as follows: After 1 year, 3 days; after 4 years, 5 days; after 6 years, 7 days; after 8 years, 8 days; and after 10 years, 9 days. Seasonal workers employed more than one season in the same enterprise are entitled, after 50 shifts in the second season, to half the leave for regular workers with the same period of service, while after 75 shifts they are entitled to three-quarters of the full leave.

Married workers are entitled to a family allowance of 1 pfennig (2.4 cents) per hour for wife and each child under 14 years of age.

Mineral Oil Industry

Producing and Drilling Plants, Bremen District

THE following wage rates (per working-day of 7½ hours for underground workers and 8 hours for surface workers) have been in force for the Bremen district since October 1, 1928:

| | Marks |
|--|---------------|
| Pickmen..... | 6.60 (\$1.57) |
| Crew foremen..... | 6.50 (\$1.55) |
| Skilled workmen..... | 6.50 (\$1.55) |
| Engineers..... | 5.65 (\$1.34) |
| Drillers, cable workmen, laborers operating chain and cable cars, and stokers..... | 5.55 (\$1.32) |
| Semiskilled laborers, unskilled laborers assisting engineers and oilers..... | 5.45 (\$1.30) |
| Pumping crews (other laborers, cleaning crews and laborers operating elevators)..... | 5.20 (\$1.24) |
| Crews working above ground, pump watchmen, porters, watchmen, telephone operators, messengers and drivers..... | 5.15 (\$1.23) |

The wages for contract and piece work are fixed on an average of 15 per cent minimum above the usual shift wages. The contract and piecework laborers are guaranteed full shift wages provided they do a normal day's work.

An extra allowance is given for each household and for each child of 10 pfennigs (2.4 cents) per working-day.

For overtime, Sunday, and holiday work, time and a quarter is paid and for work on Christmas, Easter, or Whitsuntide, double time is paid.

Workers are given the following vacation: After 1 year of continuous work in the industry, 3 days; after 3 years, 4 days; after 4 years, 5 days; and after 5 years, 6 days. Underground workers, after 6 years of continuous work in the industry, receive 7 days' vacation and after 7 years, 8 days' vacation.

Refineries, Hamburg District

The oil refineries in the Hamburg district are all located in the free port of Hamburg. The basic hourly wage rates in effect in October, 1931, in these refineries were as follows:

| Males: | Marks |
|--|-------------------|
| Skilled labor in all departments..... | 1.16 (27.6 cents) |
| Partly trained labor, during first six months..... | 1.03 (24.5 cents) |
| Partly trained labor, after six months..... | 1.04 (24.8 cents) |
| Machinists and firemen, after one year's training..... | 1.16 (27.6 cents) |
| Machinists and firemen, during first year of training..... | 1.03 (24.5 cents) |
| Cranemen, after one year's training..... | 1.16 (27.6 cents) |
| Cranemen, during first year's training..... | 1.03 (24.5 cents) |
| Workers tending machines and boilers..... | 1.03 (24.5 cents) |
| Skilled workers on responsible jobs..... | 1.16 (27.6 cents) |
| Other skilled labor..... | 1.03 (24.5 cents) |
| Unskilled workers..... | 1.00 (23.8 cents) |
| Females: | |
| Skilled workers with experience..... | .68 (16.2 cents) |
| Unskilled workers..... | .60 (14.3 cents) |

The hours of labor are 8 per day and 48 per week, but may be extended for sufficient reasons by one hour per day upon agreement with the workers' representatives.

In concerns which, for technical reasons employ three shifts per day, a week's work consists of 56 hours. In these concerns the worker is entitled to 36 hours' rest every three weeks.

Overtime is paid for by an additional 20 per cent for the ninth hour, and 25 per cent for each succeeding hour of overtime during the day. Work at night and on Sundays entitles the worker to a 50 per cent increase.

A vacation with full pay is granted each employee of from 3 working-days (after having been employed one year) to 10 working-days (after 10 years of employment).

Agriculture

THE following schedule of wages has been published by the Association of Trade Unions in Germany for farm labor throughout the country, and includes not only the rate of pay but also the value of payments in kind to the various workers, effective at the end of June, 1931:

TABLE 40.—HOURLY WAGES OF FULL-TIME AGRICULTURAL WORKERS IN GERMANY, JUNE, 1931

[Conversions into United States currency on basis of pfennig=0.238 cent]

| Sex of workers, and Province | Cash | | Deliveries in kind | | Total remuneration | |
|------------------------------|-----------------|------------------------|--------------------|------------------------|--------------------|------------------------|
| | German currency | United States currency | German currency | United States currency | German currency | United States currency |
| <i>Males</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> | <i>Pfennigs</i> | <i>Cents</i> |
| Pomerania..... | 16.00 | 3.81 | 24.80 | 5.90 | 40.80 | 9.71 |
| Mecklenburg..... | 8.70 | 2.07 | 29.10 | 6.93 | 37.80 | 9.00 |
| Brandenburg..... | 16.50 | 3.93 | 24.61 | 5.86 | 41.11 | 9.78 |
| Silesia..... | 12.50 | 2.98 | 24.96 | 5.94 | 37.46 | 8.92 |
| Hannover..... | 28.50 | 6.78 | 14.43 | 3.43 | 42.93 | 10.21 |
| Schleswig-Holstein..... | 16.00 | 3.81 | 24.78 | 5.90 | 40.78 | 9.71 |
| Saxony..... | 29.50 | 7.02 | 13.04 | 3.10 | 42.54 | 10.12 |
| Anhalt..... | 26.00 | 6.19 | 14.17 | 3.37 | 40.17 | 9.56 |
| Dresden zone..... | 29.00 | 6.90 | 14.39 | 3.42 | 43.39 | 10.33 |
| Thuringia..... | 22.50 | 5.36 | 11.25 | 2.68 | 33.75 | 8.03 |
| Hessen-Nassau..... | 29.50 | 7.02 | 10.32 | 2.46 | 39.82 | 9.48 |
| Rheinhausen..... | 40.00 | 9.52 | ..... | ..... | 40.00 | 9.52 |
| Westfalen..... | 27.00 | 6.43 | 21.02 | 5.00 | 48.02 | 11.43 |
| Württemberg..... | 47.00 | 11.19 | ..... | ..... | 47.00 | 11.19 |
| Bavaria..... | 35.00 | 8.33 | 7.84 | 1.87 | 42.84 | 10.20 |
| <i>Females</i> | | | | | | |
| Pomerania..... | 26.00 | 6.19 | ..... | ..... | 26.00 | 6.19 |
| Mecklenburg..... | 23.00 | 5.47 | 3.71 | .88 | 26.71 | 6.36 |
| Brandenburg..... | 16.00 | 3.81 | 5.30 | 1.26 | 21.30 | 5.07 |
| Silesia..... | 20.00 | 4.76 | ..... | ..... | 20.00 | 4.76 |
| Hannover..... | 20.00 | 4.76 | 3.71 | .88 | 23.71 | 5.64 |
| Schleswig-Holstein..... | 26.00 | 6.19 | ..... | ..... | 26.00 | 6.19 |
| Saxony..... | 28.00 | 6.66 | ..... | ..... | 28.00 | 6.66 |
| Anhalt..... | 18.50 | 4.40 | 3.80 | .90 | 22.30 | 5.31 |
| Dresden zone..... | 21.50 | 5.12 | 8.48 | 2.02 | 29.98 | 7.14 |
| Thuringia..... | 18.00 | 4.28 | 4.07 | .97 | 22.07 | 5.25 |
| Hessen-Nassau..... | 24.00 | 5.71 | 5.65 | 1.34 | 29.65 | 7.06 |
| Rheinhausen..... | 24.00 | 5.71 | ..... | ..... | 24.00 | 5.71 |
| Westfalen..... | 35.00 | 8.33 | ..... | ..... | 35.00 | 8.33 |
| Württemberg..... | 33.00 | 7.85 | ..... | ..... | 33.00 | 7.85 |
| Bavaria..... | 26.27 | 6.25 | 6.87 | 1.64 | 33.14 | 7.89 |

The working hours in this industry vary from 8 to 10 hours per day, according to the season, a common schedule being 8 hours per day during 4 months, 9 hours during 2 months, and 10 hours during 6 months of the year.

Most agreements seem to provide for extra pay for overtime and holidays, the common rate for overtime being 25 per cent and for Sundays and holidays 50 per cent over the usual rate.

Vacations of from 1 to 6 days, depending on length of service, are provided for in some agreements.

TREND OF EMPLOYMENT

Summary for April, 1932

EMPLOYMENT decreased 2.7 per cent in April, 1932, as compared with March, 1932, and earnings decreased 5.1 per cent.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the earnings for one week, for both March and April, 1932, together with the per cents of change in April, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND EARNINGS, MARCH AND APRIL, 1932

| Industrial group | Estab- lish- ments | Employment | | Per cent of change | Earnings in 1 week | | Per cent of change |
|---|--------------------------|------------------|------------------|--------------------------|--------------------|-------------------|--------------------------|
| | | March, 1932 | April, 1932 | | March, 1932 | April, 1932 | |
| 1. Manufacturing..... | 18,254 | 2,900,901 | 2,791,626 | -3.6 | 56,734,275 | 52,771,568 | -7.3 |
| 2. Coal mining..... | 1,397 | 287,681 | 258,596 | -10.1 | 5,483,579 | 5,071,846 | -7.5 |
| Anthracite..... | 160 | 100,749 | 95,851 | -4.9 | 2,430,613 | 2,861,565 | +17.7 |
| Bituminous..... | 1,237 | 186,932 | 162,745 | -12.9 | 3,052,966 | 2,210,281 | -27.6 |
| 3. Metalliferous mining..... | 262 | 28,807 | 27,714 | -3.8 | 532,713 | 502,676 | -5.6 |
| 4. Quarrying and nonme- talic mining..... | 619 | 20,729 | 21,866 | +5.5 | 348,226 | 363,659 | +4.4 |
| 5. Crude petroleum produc- ing..... | 266 | 20,358 | 21,735 | +6.8 | 643,784 | 663,076 | +3.0 |
| 6. Public utilities..... | 12,247 | 646,623 | 643,721 | -0.4 | 19,438,763 | 18,631,667 | -4.2 |
| Telephone and telegraph..... | 8,215 | 289,510 | 287,876 | -0.6 | 8,418,962 | 7,955,314 | -5.5 |
| Power, light, and water..... | 3,541 | 225,091 | 223,200 | -0.8 | 7,061,683 | 6,811,614 | -3.5 |
| Electric railroad opera- tion and maintenance exclusive of car shops..... | 491 | 132,022 | 132,645 | +0.5 | 3,958,118 | 3,864,739 | -2.4 |
| 7. Trade..... | 16,009 | 420,379 | 420,347 | -(?) | 9,674,954 | 9,533,458 | -1.5 |
| Wholesale..... | 2,786 | 74,066 | 73,253 | -1.1 | 2,132,404 | 2,061,211 | -3.3 |
| Retail..... | 13,223 | 346,313 | 347,094 | +0.2 | 7,542,550 | 7,472,247 | -0.9 |
| 8. Hotels..... | 2,264 | 138,877 | 136,646 | -1.6 | 2,077,542 | 1,997,490 | -3.9 |
| 9. Canning and preserving..... | 820 | 25,446 | 32,977 | +29.6 | 389,376 | 462,554 | +18.8 |
| 10. Laundries..... | 1,004 | 60,758 | 60,785 | -(?) | 1,037,913 | 1,033,815 | -0.4 |
| 11. Dyeing and cleaning..... | 404 | 11,947 | 12,337 | +3.3 | 234,701 | 251,011 | +6.9 |
| 12. Building construction..... | 9,875 | 77,265 | 85,503 | +10.7 | 2,059,769 | 2,387,133 | +15.9 |
| Total..... | 63,421 | 4,639,711 | 4,513,853 | -2.7 | 98,655,595 | 93,669,953 | -5.1 |

¹ Weighted per cent of change for the combined 89 manufacturing industries, repeated from Table 1, manufacturing industries; the remaining per cents of change, including total, are unweighted.

² Less than one-tenth of 1 per cent.

³ The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.

Data are not yet available concerning railroad employment for April, 1932. Reports of the Interstate Commerce Commission for Class I railroads show that the number of employees (exclusive of executives and officials) increased from 1,078,926 on February 15, 1932, to 1,082,276 on March 15, 1932, or 0.3 per cent; the amount of pay roll increased from \$125,697,573 in February to \$133,651,340 in March, or 6.3 per cent.

Employment in Selected Manufacturing Industries in April, 1932

Comparison of Employment and Earnings in April, 1932, with March, 1932, and April, 1931

EMPLOYMENT in manufacturing industries decreased 3.6 per cent in April, 1932, as compared with March, 1932, and earnings decreased 7.3 per cent over the month interval. Comparing April, 1932, with April, 1931, decreases of 17.8 per cent in employment and 34.7 per cent in earnings are shown over the 12-month period.

The per cents of change in employment and earnings in April, 1932, as compared with March, 1932, are based on returns made by 18,254 establishments in 89 of the principal manufacturing industries in the United States, having in April 2, 791,626 employees whose earnings in one week were \$52,771,568.

The index of employment in April, 1932, was 62.2 as compared with 64.5 in March, 1932, 65.6 in February, 1932, and 75.7 in April, 1931. The earnings index in April, 1932, was 44.7 as compared with 48.2 in March, 1932, 49.6 in February, and 68.5 in April, 1931. The 12-month average for 1926 equals 100.

A statement relative to the expansion of the bureau's indexes to cover 89 manufacturing industries, instead of 54 as previously reported, has been published in each of the three preceding issues of this pamphlet.

In Table 1, which follows, are shown the number of identical establishments reporting in both March and April, 1932, in the 89 manufacturing industries, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest April 15, and the amount of their weekly earnings in April, the per cents of change over the month and the year intervals, and the index numbers of employment and earnings in April, 1932.

The monthly per cents of change for each of the 89 separate industries are computed by direct comparison of the total number of employees and of the amount of weekly earnings reported in identical establishments for the two months considered. The per cents of change over the month interval in the several groups and in the total of the 89 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighting the index numbers of the several industries in the groups by the number of employees or wages paid in the industries. The per cents of change over the year interval in the separate industries, in the groups, and in the totals are computed from the index numbers of employment and earnings.

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN MANUFACTURING ESTABLISHMENTS IN MARCH AND APRIL, 1932, AND APRIL, 1931

| Industry | Estab- lish- ments report- ing in both March and April, 1932 | Employment | | | Earnings | | | Index num- bers, April, 1932, (average 1926=100) | |
|---|---|--|-------------------------------|--------------------------------------|--|-------------------------------|--------------------------------------|--|---------------|
| | | Number on pay roll April, 1932 | Per cent of change | | Amount of pay roll (1 week) April, 1932 | Per cent of change | | Em- ploy- ment | Earn- ings |
| | | | March to April, 1932 | April, 1931, to April, 1932 | | March to April, 1932 | April, 1931, to April, 1932 | | |
| Food and kindred products. | 3,039 | 231,240 | -0.5 | -7.9 | \$5,248,624 | -1.4 | -17.5 | 79.8 | 70.3 |
| Slaughtering and meat packing..... | 231 | 81,979 | -1.4 | -5.3 | 1,856,339 | -0.6 | -17.4 | 84.7 | 74.3 |
| Confectionery..... | 343 | 31,701 | -3.6 | -12.2 | 493,406 | -4.6 | -22.8 | 68.6 | 56.5 |
| Ice cream..... | 395 | 12,160 | +3.9 | -9.6 | 363,498 | +2.4 | -19.0 | 71.0 | 64.3 |
| Flour..... | 456 | 16,506 | -0.1 | -3.6 | 372,829 | +2.1 | -13.9 | 84.7 | 72.7 |
| Baking..... | 937 | 63,220 | -0.7 | -8.0 | 1,490,180 | -3.7 | -16.6 | 82.9 | 73.0 |
| Sugar refining, cane..... | 16 | 7,957 | -2.8 | -10.9 | 209,047 | -3.3 | -19.3 | 74.4 | 67.4 |
| Beet sugar..... | 48 | 2,254 | +9.7 | -1.4 | 64,996 | +5.1 | -12.1 | 29.1 | 29.8 |
| Beverages..... | 343 | 10,132 | +5.3 | -11.7 | 272,590 | +5.8 | -21.4 | 76.2 | 65.1 |
| Butter..... | 270 | 5,331 | +3.8 | -8.9 | 125,739 | +1.2 | -15.9 | 97.3 | 85.9 |
| Textiles and their products. | 3,071 | 562,477 | -7.5 | -15.8 | 7,617,023 | -16.5 | -35.7 | 67.9 | 46.2 |
| Cotton goods..... | 613 | 194,901 | -7.5 | -10.3 | 2,176,300 | -14.9 | -32.1 | 69.3 | 48.5 |
| Hosiery and knit goods..... | 448 | 100,783 | -2.9 | -1.6 | 1,363,348 | -9.2 | -22.1 | 79.3 | 56.8 |
| Silk goods..... | 270 | 39,665 | -8.8 | -34.4 | 519,974 | -10.8 | -52.2 | 52.9 | 34.4 |
| Woolen and worsted goods..... | 252 | 42,068 | -18.8 | -24.7 | 644,777 | -29.4 | -42.4 | 54.0 | 37.7 |
| Carpets and rugs..... | 36 | 14,274 | -6.8 | -24.7 | 235,663 | -12.0 | -43.8 | 58.1 | 36.3 |
| Dyeing and finishing tex- tiles..... | 151 | 35,587 | -6.0 | -13.7 | 667,762 | -17.5 | -34.1 | 80.7 | 59.7 |
| Clothing, men's..... | 379 | 55,460 | -8.0 | -13.9 | 733,589 | -23.5 | -37.8 | 65.5 | 36.2 |
| Shirts and collars..... | 112 | 13,890 | -5.3 | -24.0 | 147,870 | -10.5 | -41.4 | 57.1 | 36.8 |
| Clothing, women's..... | 407 | 28,522 | -1.7 | -22.5 | 546,157 | -12.5 | -35.2 | 76.2 | 54.2 |
| Millinery..... | 144 | 10,269 | -10.0 | -10.2 | 194,972 | -13.1 | -24.8 | 75.8 | 58.4 |
| Corsets and allied garments..... | 32 | 5,893 | -2.7 | -3.6 | 91,723 | -8.9 | -28.8 | 105.2 | 86.7 |
| Cotton small wares..... | 114 | 10,709 | -5.6 | -21.3 | 164,340 | -15.2 | -40.5 | 81.8 | 59.3 |
| Hats, fur felt..... | 38 | 4,710 | -7.2 | -29.2 | 62,910 | -29.5 | -42.7 | 62.2 | 29.2 |
| Men's furnishings..... | 75 | 5,746 | -6.6 | -20.6 | 67,638 | -20.7 | -39.0 | 61.7 | 40.5 |
| Iron and steel and their products, not including machinery. | 1,424 | 335,704 | -3.1 | -20.9 | 5,323,043 | -9.1 | 49.5 | 59.1 | 32.0 |
| Iron and steel..... | 221 | 202,075 | -2.8 | -21.5 | 3,005,714 | -10.5 | -56.3 | 59.8 | 29.4 |
| Cast-iron pipe..... | 43 | 6,863 | -8.1 | -42.2 | 108,689 | -9.7 | -60.7 | 35.0 | 22.9 |
| Structural and ornamental ironwork..... | 193 | 18,563 | -4.4 | -30.0 | 359,173 | -5.7 | -46.6 | 51.9 | 32.4 |
| Hardware..... | 113 | 24,060 | -3.0 | -18.7 | 357,347 | -10.4 | -41.8 | 55.9 | 31.2 |
| Steam fittings and steam and hot-water heating apparatus..... | 113 | 18,051 | -10.2 | -32.1 | 317,827 | -9.0 | -47.0 | 39.2 | 23.7 |
| Stoves..... | 160 | 15,484 | +0.5 | -21.1 | 267,880 | -4.0 | -41.2 | 51.6 | 29.4 |
| Bolts, nuts, washers, and rivets..... | 69 | 8,872 | -2.5 | -19.8 | 143,693 | -7.9 | -44.7 | 66.3 | 39.2 |
| Cutlery (not including silver and plated cut- lery) and edge tools..... | 130 | 10,577 | +0.4 | -4.8 | 210,819 | +0.8 | -15.4 | 75.2 | 55.5 |
| Forgings, iron and steel..... | 62 | 5,815 | -13.4 | -11.1 | 95,766 | -19.7 | -46.3 | 58.6 | 32.0 |
| Plumbers' supplies..... | 66 | 4,590 | -1.2 | -15.6 | 72,023 | -4.4 | -36.7 | 64.7 | 37.5 |
| Tin cans and other tinware..... | 56 | 7,603 | +0.3 | -19.1 | 155,298 | -1.6 | -27.3 | 73.7 | 46.0 |
| Tools (not including edge tools, machine tools, files, or saws)..... | 127 | 7,822 | -1.9 | -18.9 | 129,312 | -6.6 | -34.1 | 71.8 | 44.3 |
| Wirework..... | 71 | 5,329 | -3.0 | +2.1 | 99,502 | -13.3 | -17.2 | 95.2 | 70.9 |
| Lumber and allied products. | 1,643 | 127,855 | -1.2 | -27.5 | 1,725,142 | -4.6 | -48.2 | 39.6 | 23.0 |
| Lumber, sawmills..... | 667 | 61,335 | +2.2 | -29.4 | 751,891 | +0.3 | -50.1 | 36.1 | 20.0 |
| Lumber, millwork..... | 463 | 20,232 | -4.7 | -30.3 | 312,914 | -4.0 | -49.5 | 38.5 | 24.1 |
| Furniture..... | 492 | 45,237 | -6.7 | -22.2 | 645,910 | -12.2 | -44.7 | 48.4 | 27.5 |
| Turpentine and rosin..... | 21 | 1,051 | -0.6 | -26.8 | 14,427 | +4.9 | -42.7 | 44.8 | 37.2 |
| Leather and its manufac- tures. | 502 | 134,495 | -3.0 | -4.5 | 2,204,331 | -10.6 | -21.1 | 77.8 | 53.8 |
| Leather..... | 174 | 25,291 | -0.6 | -9.4 | 492,608 | -5.0 | -25.2 | 70.3 | 54.8 |
| Boots and shoes..... | 328 | 109,204 | -3.6 | -3.4 | 1,711,723 | -12.2 | -19.9 | 79.7 | 53.5 |
| Paper and printing. | 1,972 | 230,878 | -1.3 | -9.7 | 6,252,551 | -3.1 | -29.7 | 83.1 | 74.1 |
| Paper and pulp..... | 420 | 81,239 | -1.8 | -6.8 | 1,611,715 | -6.3 | -24.2 | 76.4 | 57.2 |
| Paper boxes..... | 325 | 22,116 | -1.1 | -11.6 | 420,188 | -3.8 | -22.8 | 72.5 | 63.4 |
| Printing, book and job..... | 760 | 55,583 | -1.8 | -14.4 | 1,598,736 | -4.1 | -25.5 | 78.7 | 69.0 |
| Printing, newspapers and periodicals..... | 467 | 71,940 | -0.7 | -6.7 | 2,621,912 | -0.9 | -14.3 | 100.4 | 94.4 |

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN MANUFACTURING ESTABLISHMENTS IN MARCH AND APRIL, 1932, AND APRIL, 1931—Continued

| Industry | Establishments reporting in both March and April, 1932 | Employment | | | Earnings | | | Index numbers, April, 1932, (average 1926=100) | |
|--|--|--------------------------------|----------------------|-----------------------------|---|----------------------|-----------------------------|--|-------------|
| | | Number on pay roll April, 1932 | Per cent of change | | Amount of pay roll (1 week) April, 1932 | Per cent of change | | Employment | Earnings |
| | | | March to April, 1932 | April, 1931, to April, 1932 | | March to April, 1932 | April, 1931, to April, 1932 | | |
| Chemicals and allied products | 1,029 | 151,221 | +0.9 | -13.1 | \$3,536,579 | -2.2 | -23.8 | 80.6 | 68.2 |
| Chemicals..... | 111 | 20,697 | -1.4 | -8.8 | 530,120 | -4.0 | -19.1 | 87.7 | 68.0 |
| Fertilizers..... | 204 | 12,390 | +40.8 | -22.7 | 148,829 | +36.5 | -44.8 | 90.0 | 58.2 |
| Petroleum refining..... | 123 | 49,545 | -0.2 | -16.4 | 1,411,098 | -2.4 | -26.3 | 65.1 | 58.7 |
| Cottonseed oil, cake, and meal..... | 54 | 2,377 | -11.7 | -24.6 | 29,615 | -10.8 | -23.2 | 41.1 | 40.4 |
| Druggists' preparations..... | 40 | 7,648 | -6.8 | -9.4 | 158,037 | -6.5 | -20.0 | 74.2 | 74.5 |
| Explosives..... | 22 | 2,832 | -3.2 | -27.5 | 56,241 | -8.6 | -39.0 | 75.4 | 51.5 |
| Paints and varnishes..... | 371 | 15,994 | -1.9 | -13.5 | 383,223 | -3.4 | -25.9 | 72.8 | 62.8 |
| Rayon..... | 22 | 26,757 | -3.4 | -6.2 | 490,367 | -5.6 | -16.2 | 138.8 | 125.6 |
| Soap..... | 82 | 12,981 | -0.3 | -5.0 | 329,049 | +1.2 | -17.0 | 96.5 | 90.5 |
| Stone, clay, and glass products | 1,376 | 92,001 | (1) | -28.7 | 1,676,082 | -0.9 | -45.6 | 48.1 | 32.9 |
| Cement..... | 126 | 14,642 | +0.7 | -32.1 | 278,777 | -1.6 | -51.6 | 43.4 | 27.9 |
| Brick, tile, and terra cotta..... | 704 | 20,382 | +4.7 | -39.5 | 265,344 | +5.0 | -61.3 | 30.9 | 14.9 |
| Pottery..... | 121 | 15,183 | -2.3 | -16.0 | 257,942 | -6.9 | -36.1 | 67.7 | 45.1 |
| Glass..... | 190 | 35,549 | -2.7 | -13.3 | 722,312 | -1.7 | -26.6 | 63.2 | 50.0 |
| Marble, granite, slate, and other stone products..... | 235 | 6,245 | +1.9 | -43.0 | 151,707 | +2.7 | -54.5 | 53.4 | 41.4 |
| Nonferrous metals and their products | 632 | 82,571 | -4.3 | -19.2 | 1,488,627 | -7.4 | -40.3 | 58.0 | 39.9 |
| Stamped and enameled ware..... | 80 | 13,795 | -2.8 | -11.7 | 249,687 | -5.7 | -30.8 | 65.2 | 46.6 |
| Brass, bronze, and copper products..... | 203 | 29,315 | -5.4 | -19.2 | 513,095 | -10.7 | -41.6 | 56.3 | 35.9 |
| Aluminum manufactures..... | 25 | 5,253 | -5.0 | -34.7 | 82,466 | -4.7 | -57.8 | 52.7 | 31.5 |
| Clocks, time recording devices, and clock movements..... | 22 | 4,532 | -8.2 | -22.8 | 67,974 | -2.1 | -39.2 | 47.7 | 32.4 |
| Gas and electric fixtures, lamps, lanterns, and reflectors..... | 55 | 5,197 | -2.5 | -21.6 | 112,442 | -7.3 | -35.0 | 72.8 | 53.6 |
| Plated ware..... | 55 | 7,677 | -1.5 | -16.4 | 155,809 | -6.9 | -33.9 | 63.7 | 43.4 |
| Smelting and refining—copper, lead, and zinc..... | 25 | 8,134 | -3.2 | -16.7 | 145,828 | -3.8 | -46.9 | 64.7 | 44.1 |
| Jewelry..... | 158 | 8,668 | -6.2 | -22.1 | 161,326 | -12.5 | -36.3 | 40.6 | 27.9 |
| Tobacco manufactures | 261 | 56,962 | -2.8 | -14.1 | 718,699 | -5.6 | -24.6 | 70.5 | 52.4 |
| Chewing and smoking tobacco and snuff..... | 37 | 10,038 | -2.2 | +9.0 | 139,973 | -0.6 | -2.3 | 87.0 | 72.2 |
| Cigars and cigarettes..... | 224 | 46,924 | -2.9 | -17.0 | 578,726 | -6.4 | -27.5 | 68.4 | 50.0 |
| Transportation equipment | 418 | 272,836 | -6.2 | -20.9 | 6,285,422 | -5.7 | -31.6 | 59.4 | 46.2 |
| Automobiles..... | 246 | 224,508 | -7.7 | -21.6 | 5,046,979 | -8.2 | -33.4 | 60.2 | 45.8 |
| Aircraft..... | 31 | 5,721 | -6.8 | -26.8 | 185,806 | -6.7 | -29.2 | 214.3 | 218.8 |
| Cars, electric and steam railroad..... | 34 | 5,235 | -3.5 | -33.7 | 97,435 | -4.8 | -42.7 | 22.0 | 14.1 |
| Locomotives..... | 15 | 3,668 | +4.1 | -38.2 | 89,651 | +1.1 | -42.0 | 21.4 | 18.4 |
| Shipbuilding..... | 92 | 33,704 | +2.8 | -9.2 | 865,551 | +9.0 | -15.3 | 91.1 | 80.4 |
| Rubber products | 149 | 74,595 | -1.5 | -7.2 | 1,481,597 | -6.2 | -27.1 | 67.5 | 46.7 |
| Rubber tires and inner tubes..... | 40 | 45,170 | -0.3 | -5.9 | 968,632 | -4.9 | -30.3 | 64.9 | 45.4 |
| Rubber boots and shoes..... | 10 | 10,931 | -4.2 | -7.1 | 172,629 | -11.8 | -12.8 | 57.3 | 38.3 |
| Rubber goods, other than boots, shoes, tires, and inner tubes..... | 99 | 18,494 | -2.7 | -9.6 | 340,336 | -7.1 | -24.9 | 81.1 | 56.1 |
| Machinery, not including transportation equipment | 1,823 | 337,834 | -4.8 | -27.4 | 6,750,471 | -7.8 | -43.1 | 55.3 | 36.7 |
| Agricultural implements..... | 69 | 7,242 | -10.6 | -39.2 | 123,937 | -17.0 | -35.3 | 36.4 | 28.2 |
| Electrical machinery, apparatus, and supplies..... | 287 | 136,935 | -5.2 | -23.8 | 2,980,914 | -8.2 | -38.0 | 65.7 | 48.9 |
| Engines, turbines, tractors, and water wheels..... | 77 | 16,102 | -5.6 | -36.4 | 339,079 | -5.1 | -51.4 | 48.5 | 32.1 |

1 No change.

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN MANUFACTURING ESTABLISHMENTS IN MARCH AND APRIL, 1932, AND APRIL, 1931—Continued

| Industry | Estab- lish- ments report- ing in both March and April, 1932 | Employment | | | Earnings | | | Index num- bers, April, 1932, (average 1926=100) | |
|---|---|--|-------------------------------|--------------------------------------|--|-------------------------------|--------------------------------------|--|---------------|
| | | Number on pay roll April, 1932 | Per cent of change | | Amount of pay roll (1 week) April, 1932 | Per cent of change | | Em- ploy- ment | Earn- ings |
| | | | March to April, 1932 | April, 1931, to April, 1932 | | March to April, 1932 | April, 1931, to April, 1932 | | |
| Machinery, not including transportation equip- ment—Continued. | | | | | | | | | |
| Cash registers, adding ma- chines, and calculating machines..... | 48 | 15,502 | -2.2 | -11.8 | \$355,203 | -4.1 | -28.6 | 73.7 | 52.3 |
| Foundry and machine- shop products..... | 1,089 | 115,756 | -3.7 | -28.3 | 2,083,513 | -6.9 | -46.7 | 51.2 | 30.8 |
| Machine tools..... | 155 | 13,634 | -9.2 | -42.8 | 272,968 | -11.8 | -52.6 | 40.5 | 26.6 |
| Textile machinery and parts..... | 36 | 6,858 | -7.2 | -20.3 | 133,332 | -13.6 | -32.6 | 61.3 | 43.7 |
| Typewriters and supplies.. | 18 | 10,756 | -1.1 | -16.2 | 168,555 | -5.0 | -35.1 | 70.6 | 43.5 |
| Radio..... | 44 | 15,049 | -10.7 | -30.0 | 292,970 | -9.5 | -42.8 | 57.3 | 46.3 |
| Railroad repair shops..... | 915 | 100,957 | +0.8 | -19.0 | 2,463,377 | +0.9 | -34.4 | 52.9 | 43.3 |
| Electric railroad..... | 406 | 22,901 | -0.1 | -12.6 | 646,939 | -1.8 | -19.5 | 71.3 | 64.6 |
| Steam railroad..... | 509 | 78,056 | +1.0 | -19.5 | 1,816,438 | +1.3 | -35.9 | 51.5 | 41.6 |
| Total, 89 industries..... | 18,254 | 2,791,626 | -3.6 | -17.8 | 52,771,568 | -7.3 | -34.7 | 62.2 | 44.7 |

Per Capita Weekly Earnings

IN THE following tables are shown the actual per capita weekly earnings in April, 1932, for each of the 16 industrial groups and each of the 89 separate manufacturing industries included in the bureau's monthly trend of employment survey, together with per cents of change in April, 1932, as compared with March, 1932, and April, 1932.

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN APRIL, 1932, IN 16 INDUSTRIAL GROUPS AND COMPARISON WITH MARCH, 1932, AND APRIL, 1931

| Industrial group | Per capita weekly earnings in April, 1932 | Per cent of change April, 1932, compared with— | |
|---|---|--|------------------|
| | | March, 1932 | April, 1931 |
| 1. Manufacturing (89 industries)..... | \$18.90 | -3.7 | -20.6 |
| 2. Coal mining: | | | |
| Anthracite..... | 29.85 | +23.7 | +16.3 |
| Bituminous..... | 13.58 | -16.8 | -24.0 |
| 3. Metalliferous mining..... | 18.14 | -1.9 | -28.2 |
| 4. Quarrying and nonmetallic mining..... | 16.63 | -1.0 | -25.0 |
| 5. Crude petroleum producing..... | 30.51 | -3.5 | -14.6 |
| 6. Public utilities: | | | |
| Telephone and telegraph..... | 27.63 | -5.0 | -4.7 |
| Power and light..... | 30.52 | -2.7 | -3.3 |
| Electric railroads..... | 29.14 | -2.8 | -9.2 |
| 7. Trade: | | | |
| Wholesale..... | 28.14 | -2.3 | -10.5 |
| Retail..... | 21.53 | -1.1 | -9.1 |
| 8. Hotels (cash payments only) ¹ | 14.62 | -2.3 | -10.1 |
| 9. Canning and preserving..... | 14.03 | -8.3 | -15.9 |
| 10. Laundries..... | 17.01 | -0.4 | -9.5 |
| 11. Dyeing and cleaning..... | 20.35 | +3.6 | -12.0 |
| 12. Building construction..... | 27.92 | +4.6 | (²) |
| Total..... | 20.61 | -2.6 | -15.2 |

¹ The additional value of board, room, and tips can not be computed.² Data not available.³ Does not include building construction.

Per capita earnings given in the foregoing table and in Table 3 following must not be confused with full-time weekly rates of wages. They are actual per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees reported which includes part-time as well as full-time workers.

TABLE 3.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING INDUSTRIES** IN APRIL, 1932, AND COMPARISON WITH MARCH, 1932, AND APRIL, 1931

| Industry | Per capita weekly earnings in April, 1932 | Per cent of change compared with— | |
|--|---|-----------------------------------|-------------|
| | | March, 1932 | April, 1931 |
| Food and kindred products: | | | |
| Slaughtering and meat packing..... | \$22.64 | +0.8 | -12.9 |
| Confectionery..... | 15.56 | -1.1 | -12.3 |
| Ice cream..... | 29.89 | -1.5 | -10.6 |
| Flour..... | 22.59 | +2.3 | -10.5 |
| Baking..... | 23.57 | -3.1 | -9.3 |
| Sugar refining, cane..... | 26.27 | -0.5 | -9.3 |
| Beet sugar..... | 28.84 | -4.2 | -10.8 |
| Beverages..... | 26.90 | +0.4 | -11.0 |
| Butter..... | 23.59 | -2.4 | -7.5 |
| Textiles and their products: | | | |
| Cotton goods..... | 11.17 | -8.0 | -24.1 |
| Hosiery and knit goods..... | 13.53 | -6.5 | -20.8 |
| Silk goods..... | 13.11 | -2.2 | -27.4 |
| Woolen and worsted goods..... | 15.33 | -13.0 | -23.7 |
| Carpets and rugs..... | 16.51 | -5.6 | -25.3 |
| Dyeing and finishing textiles..... | 18.76 | -12.3 | -23.7 |
| Clothing, men's..... | 13.23 | -16.8 | -27.7 |
| Shirts and collars..... | 10.65 | -5.4 | -22.7 |
| Clothing, women's..... | 19.15 | -11.0 | -16.5 |
| Millinery..... | 18.99 | -3.4 | -16.1 |
| Corsets and allied garments..... | 15.56 | -6.4 | -26.3 |
| Cotton small wares..... | 15.35 | -10.1 | -24.3 |
| Hats, fur-felt..... | 13.36 | -24.0 | -19.0 |
| Men's furnishings..... | 11.77 | -15.1 | -23.2 |
| Iron and steel and their products, not including machinery: | | | |
| Iron and steel..... | 14.87 | -8.0 | -44.6 |
| Cast-iron pipe..... | 15.84 | -1.7 | -31.8 |
| Structural and ornamental ironwork..... | 19.35 | -1.4 | -23.9 |
| Hardware..... | 14.85 | -7.6 | -28.5 |
| Steam fittings and steam and hot-water heating apparatus..... | 17.61 | +1.4 | -22.0 |
| Stoves..... | 17.30 | -4.5 | -25.8 |
| Bolts, nuts, washers, and rivets..... | 16.20 | -5.4 | -31.0 |
| Cutlery (not including silver and plated cutlery), and edge tools..... | 19.93 | +0.5 | -10.8 |
| Forgings, iron and steel..... | 16.47 | -7.3 | -39.6 |
| Plumbers' supplies..... | 15.69 | -3.2 | -29.5 |
| Tin cans and other tinware..... | 20.43 | -1.8 | -10.1 |
| Tools (not including edge tools, machine tools, files, or saws)..... | 16.53 | -4.8 | -18.8 |
| Wirework..... | 18.67 | -10.7 | -18.9 |
| Lumber and allied products: | | | |
| Lumber, sawmills..... | 12.26 | -1.8 | -29.1 |
| Lumber, millwork..... | 15.47 | +0.7 | -27.6 |
| Furniture..... | 14.28 | -5.9 | -28.8 |
| Turpentine and rosin..... | 13.73 | +5.5 | -21.7 |
| Leather and its manufactures: | | | |
| Leather..... | 19.48 | -4.4 | -17.6 |
| Boots and shoes..... | 15.67 | -8.9 | -17.0 |
| Paper and printing: | | | |
| Paper and pulp..... | 19.84 | -4.6 | -18.5 |
| Paper boxes..... | 19.00 | -2.8 | -12.7 |
| Printing, book and job..... | 28.76 | -2.4 | -13.0 |
| Printing, newspapers and periodicals..... | 36.45 | -0.2 | -8.0 |
| Chemicals and allied products: | | | |
| Chemicals..... | 25.61 | -2.6 | -11.0 |
| Fertilizers..... | 12.01 | -3.1 | -28.6 |
| Petroleum refining..... | 28.48 | -2.2 | -11.8 |
| Cottonseed oil, cake, and meal..... | 12.46 | +1.1 | +1.9 |
| Druggists' preparations..... | 20.66 | +0.3 | -11.7 |
| Explosives..... | 19.86 | -5.6 | -16.1 |
| Paints and varnishes..... | 23.96 | -1.4 | -14.3 |
| Rayon..... | 18.33 | -2.3 | -10.6 |
| Soap..... | 25.35 | +1.5 | -12.8 |

TABLE 3.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN APRIL, 1932, AND COMPARISON WITH MARCH, 1932, AND APRIL, 1931—Continued

| Industry | Per capita weekly earnings in April, 1932 | Per cent of change compared with— | |
|--|---|-----------------------------------|-------------|
| | | March, 1932 | April, 1931 |
| Stone, clay, and glass products: | | | |
| Cement..... | \$19.04 | -2.3 | -28.6 |
| Brick, tile, and terra cotta..... | 13.02 | +0.3 | -36.0 |
| Pottery..... | 16.99 | -4.7 | -23.5 |
| Glass..... | 20.32 | +1.0 | -15.5 |
| Marble, granite, slate, and other stone products..... | 24.29 | +0.7 | -20.5 |
| Nonferrous metals and their products: | | | |
| Stamped and enameled ware..... | 18.10 | -3.1 | -21.5 |
| Brass, bronze, and copper products..... | 17.50 | -5.6 | -28.4 |
| Aluminum manufactures..... | 15.70 | +0.3 | -35.3 |
| Clocks, time recording devices, and clock movements..... | 15.00 | +6.7 | -21.2 |
| Gas and electric fixtures, lamps, lanterns, and reflectors..... | 21.64 | -4.9 | -17.1 |
| Plated ware..... | 20.30 | -5.4 | -20.8 |
| Smelting and refining—copper, lead, and zinc..... | 17.93 | -0.7 | -36.2 |
| Jewelry..... | 18.61 | -6.7 | -18.3 |
| Tobacco manufactures: | | | |
| Chewing and smoking tobacco and snuff..... | 13.94 | +1.6 | -10.4 |
| Cigars and cigarettes..... | 12.33 | -3.7 | -12.8 |
| Transportation equipment: | | | |
| Automobiles..... | 22.48 | -0.5 | -15.3 |
| Aircraft..... | 32.48 | +0.1 | -2.8 |
| Cars, electric and steam railroad..... | 18.61 | -1.3 | -13.6 |
| Locomotives..... | 24.44 | -2.9 | -6.5 |
| Shipbuilding..... | 25.68 | +6.0 | -7.1 |
| Rubber products: | | | |
| Rubber tires and inner tubes..... | 21.44 | -4.7 | -26.2 |
| Rubber boots and shoes..... | 15.79 | -7.9 | -6.2 |
| Rubber goods, other than boots, shoes, tires, and inner tubes..... | 18.40 | -4.6 | -17.0 |
| Machinery, not including transportation equipment: | | | |
| Agricultural implements..... | 17.11 | -7.1 | +6.5 |
| Electrical machinery, apparatus, and supplies..... | 21.77 | -3.1 | -18.4 |
| Engines, turbines, tractors, and water wheels..... | 21.06 | +0.5 | -5.8 |
| Cash registers, adding machines, and calculating machines..... | 22.91 | -2.0 | -18.9 |
| Foundry and machine-shop products..... | 18.00 | -3.3 | -25.6 |
| Machine tools..... | 20.02 | -3.0 | -17.2 |
| Textile machinery and parts..... | 19.44 | -6.9 | -15.4 |
| Typewriters and supplies..... | 15.67 | -3.9 | -22.5 |
| Radio..... | 19.47 | +1.4 | -18.5 |
| Railroad repair shops: | | | |
| Electric-railroad repair shops..... | 28.25 | -1.7 | -7.9 |
| Steam-railroad repair shops..... | 23.27 | +0.3 | -20.2 |

General Index Numbers of Employment and Earnings in Manufacturing Industries

GENERAL index numbers of employment and earnings in manufacturing industries by months from January, 1926, to December, 1931, inclusive, are shown in the following table for the 54 industries which were formerly used in constructing indexes of employment and earnings. In addition, similar indexes computed from the 89 industries listed in Table 1 are presented for each of the 12 months of 1931 and for January, February, March, and April, 1932.

TABLE 4.—GENERAL INDEXES OF EMPLOYMENT AND EARNINGS IN MANUFACTURING INDUSTRIES, JANUARY, 1926, TO DECEMBER, 1931, BASED ON 54 INDUSTRIES, AND FROM JANUARY, 1931, TO APRIL, 1932, BASED ON 89 INDUSTRIES

[12-month average, 1926=100]

| Month | Employment | | | | | | | | Earnings | | | | | | | |
|-----------|------------------------|------|------|------|------|------|------------------------|------|------------------------|-------|------|-------|------|------|------------------------|------|
| | Based on 54 industries | | | | | | Based on 89 industries | | Based on 54 industries | | | | | | Based on 89 industries | |
| | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1931 | 1932 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1931 | 1932 |
| January | 100.4 | 97.3 | 91.6 | 95.2 | 90.2 | 73.1 | 74.6 | 64.8 | 98.0 | 94.9 | 89.6 | 95.5 | 87.6 | 62.3 | 63.7 | 48.6 |
| February | 101.5 | 99.0 | 93.0 | 97.4 | 90.3 | 74.1 | 75.3 | 65.6 | 102.2 | 100.6 | 93.9 | 101.8 | 90.7 | 67.0 | 68.1 | 49.6 |
| March | 102.0 | 99.5 | 93.7 | 98.6 | 89.8 | 74.8 | 75.9 | 64.5 | 103.4 | 102.0 | 95.2 | 103.9 | 90.8 | 68.5 | 69.6 | 48.2 |
| April | 101.0 | 98.6 | 93.3 | 99.1 | 89.1 | 74.5 | 75.7 | 62.2 | 101.5 | 100.8 | 93.8 | 104.6 | 89.8 | 67.4 | 68.5 | 44.7 |
| May | 99.8 | 97.6 | 93.0 | 99.2 | 87.7 | 74.1 | 75.2 | — | 99.8 | 99.8 | 94.1 | 104.8 | 87.6 | 66.6 | 67.7 | — |
| June | 99.3 | 97.0 | 93.1 | 98.8 | 85.5 | 72.2 | 73.4 | — | 99.7 | 97.4 | 94.2 | 102.8 | 84.1 | 62.5 | 63.8 | — |
| July | 97.7 | 95.0 | 92.2 | 98.2 | 81.6 | 70.4 | 71.7 | — | 95.2 | 93.0 | 91.2 | 98.2 | 75.9 | 59.1 | 60.3 | — |
| August | 98.7 | 95.1 | 93.6 | 98.6 | 79.9 | 70.0 | 71.2 | — | 98.7 | 95.0 | 94.2 | 102.1 | 73.9 | 58.5 | 59.7 | — |
| September | 100.3 | 95.8 | 95.0 | 99.3 | 79.7 | 69.6 | 70.9 | — | 99.3 | 94.1 | 95.4 | 102.6 | 74.2 | 55.4 | 56.7 | — |
| October | 100.7 | 95.3 | 95.9 | 98.3 | 78.6 | 67.3 | 68.9 | — | 102.9 | 95.2 | 99.0 | 102.3 | 72.7 | 53.7 | 55.3 | — |
| November | 99.5 | 93.5 | 95.4 | 94.8 | 76.5 | 65.4 | 67.1 | — | 99.6 | 91.6 | 96.1 | 95.1 | 68.3 | 51.0 | 52.5 | — |
| December | 98.9 | 92.6 | 95.5 | 91.9 | 75.1 | 65.3 | 66.7 | — | 99.8 | 93.2 | 97.7 | 92.0 | 67.4 | 50.9 | 52.2 | — |
| Average | 100.0 | 96.4 | 93.8 | 97.5 | 83.7 | 70.9 | 72.2 | 64.3 | 100.0 | 96.5 | 94.5 | 100.4 | 80.3 | 60.2 | 61.5 | 47.8 |

¹ Average for 4 months.

Time Worked in Manufacturing Industries in April, 1932

REPORTS as to working time in April were received from 12,662 establishments in 89 manufacturing industries. Two per cent of these establishments were idle, 45 per cent operated on a full-time basis, and 52 per cent worked on a part-time schedule.

An average of 85 per cent of full-time operation in April was shown by reports received from all the operating establishments included in this tabulation. The establishments working part time in March averaged 72 per cent of full-time operation.

TABLE 5.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN APRIL, 1932

| Industry | Establishments reporting | | Per cent of establishments in which employees worked— | | Average per cent of full time reported by— | |
|-------------------------------|--------------------------|------------------|---|-----------|--|------------------------------------|
| | Total number | Per cent idle | Full time | Part time | All operating establishments | Establishments operating part time |
| Food and kindred products | 2,291 | (¹) | 72 | 27 | 94 | 78 |
| Slaughtering and meat packing | 181 | — | 77 | 23 | 97 | 87 |
| Confectionery | 257 | — | 33 | 67 | 84 | 76 |
| Ice cream | 311 | (¹) | 65 | 35 | 95 | 86 |
| Flour | 357 | 1 | 76 | 23 | 94 | 72 |
| Baking | 647 | — | 85 | 15 | 96 | 77 |
| Sugar refining, cane | 8 | — | 63 | 38 | 93 | 81 |
| Beet sugar | 48 | — | 67 | 33 | 95 | 86 |
| Beverages | 296 | 1 | 74 | 24 | 93 | 73 |
| Butter | 186 | — | 84 | 16 | 98 | 85 |
| Textiles and their products | 2,150 | 5 | 49 | 46 | 87 | 73 |
| Cotton goods | 517 | 3 | 39 | 57 | 83 | 71 |
| Hosiery and knit goods | 348 | 3 | 55 | 42 | 88 | 73 |
| Silk goods | 229 | 17 | 44 | 40 | 86 | 72 |
| Woolen and worsted goods | 185 | 4 | 44 | 52 | 83 | 69 |
| Carpets and rugs | 24 | 4 | 29 | 67 | 79 | 70 |
| Dyeing and finishing textiles | 128 | — | 38 | 62 | 87 | 78 |

¹ Less than one-half of 1 per cent.

TABLE 5.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN APRIL, 1932—Continued

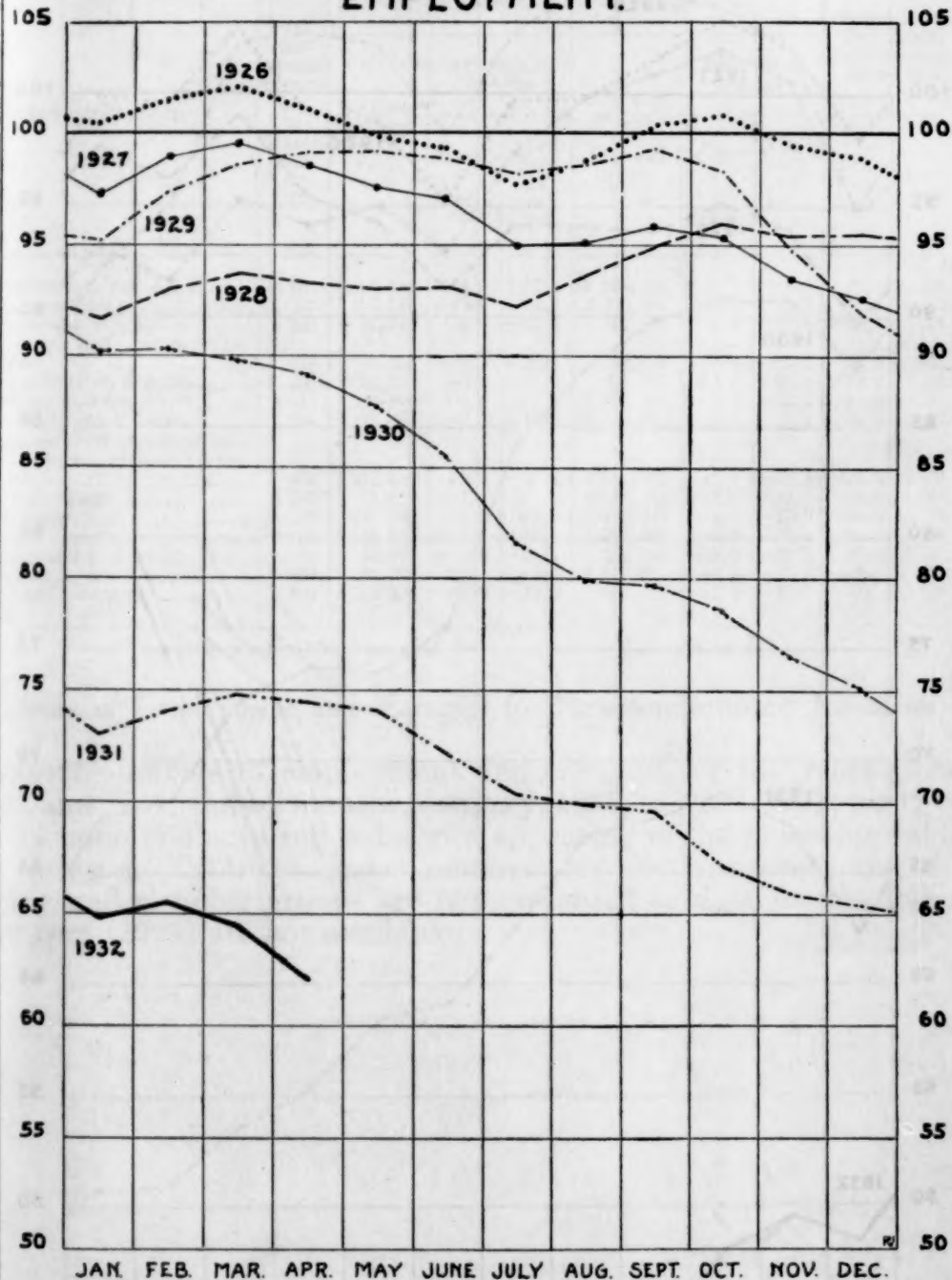
| Industry | Establishments reporting | | Per cent of establishments in which employees worked— | | Average per cent of full time reported by— | |
|--|--------------------------|---------------|---|-----------|--|------------------------------------|
| | Total number | Per cent idle | Full time | Part time | All operating establishments | Establishments operating part time |
| Textiles and their products—Continued. | | | | | | |
| Clothing, men's | 226 | 7 | 55 | 38 | 92 | 80 |
| Shirts and collars | 64 | 9 | 50 | 41 | 91 | 79 |
| Clothing, women's | 191 | 3 | 74 | 23 | 95 | 78 |
| Millinery | 83 | | 61 | 39 | 92 | 79 |
| Corsets and allied garments | 14 | | 43 | 57 | 85 | 74 |
| Cotton small wares | 83 | 1 | 54 | 45 | 90 | 77 |
| Hats, fur-felt | 19 | | 21 | 79 | 65 | 56 |
| Men's furnishings | 39 | | 56 | 44 | 88 | 74 |
| Iron and steel and their products, not including machinery | | | | | | |
| Iron and steel | 894 | 2 | 19 | 79 | 72 | 65 |
| Cast-iron pipe | 133 | 6 | 15 | 79 | 68 | 62 |
| Structural and ornamental ironwork | 37 | 19 | 8 | 73 | 63 | 58 |
| Hardware | 125 | | 12 | 88 | 76 | 72 |
| Steam fittings and steam and hot-water heating apparatus | 53 | | 21 | 79 | 70 | 63 |
| Stoves | 89 | 1 | 8 | 91 | 62 | 59 |
| Bolts, nuts, washers, and rivets | 100 | 1 | 9 | 90 | 67 | 64 |
| Cutlery (not including silver and plated cutlery) and edge tools | 49 | | 22 | 78 | 73 | 65 |
| Forgings, iron and steel | 65 | 2 | 40 | 58 | 79 | 65 |
| Plumbers' supplies | 26 | 4 | 15 | 81 | 65 | 58 |
| Tin cans and other tinware | 39 | | 26 | 74 | 74 | 65 |
| Tools (not including edge tools, machine tools, files, or saws) | 44 | | 39 | 61 | 88 | 80 |
| Wirework | 90 | 2 | 28 | 70 | 74 | 64 |
| Lumber and allied products | 44 | | 23 | 77 | 82 | 76 |
| Lumber, sawmills | 1,032 | 3 | 27 | 71 | 76 | 67 |
| Lumber, millwork | 453 | 3 | 25 | 72 | 74 | 66 |
| Furniture | 264 | 1 | 20 | 79 | 76 | 70 |
| Turpentine and rosin | 306 | 3 | 35 | 62 | 78 | 66 |
| Leather and its manufactures | 9 | | 56 | 44 | 93 | 85 |
| Leather | 368 | 1 | 43 | 56 | 85 | 73 |
| Boots and shoes | 120 | 1 | 41 | 58 | 88 | 79 |
| Paper and printing | 248 | 2 | 44 | 55 | 84 | 77 |
| Paper and pulp | 1,515 | 4 | 46 | 53 | 88 | 71 |
| Paper boxes | 303 | 2 | 37 | 61 | 82 | 71 |
| Printing, book and job | 267 | | 19 | 81 | 79 | 75 |
| Printing, newspapers and periodicals | 558 | | 35 | 65 | 88 | 81 |
| Chemicals and allied products | 387 | | 89 | 11 | 99 | 90 |
| Chemicals | 741 | 1 | 67 | 32 | 94 | 80 |
| Fertilizers | 63 | | 84 | 16 | 96 | 76 |
| Petroleum refining | 152 | 1 | 70 | 30 | 94 | 80 |
| Cottonseed oil, cake, and meal | 67 | | 79 | 21 | 98 | 89 |
| Druggists' preparations | 25 | | 76 | 24 | 96 | 82 |
| Explosives | 22 | | 55 | 45 | 93 | 86 |
| Paints and varnishes | 17 | 6 | 59 | 35 | 87 | 65 |
| Rayon | 335 | 1 | 62 | 37 | 92 | 79 |
| Soap | 13 | | 54 | 46 | 94 | 87 |
| Stone, clay, and glass products | 47 | | 62 | 38 | 94 | 85 |
| Cement | 745 | 13 | 36 | 51 | 81 | 67 |
| Brick, tile, and terra cotta | 69 | 12 | 75 | 13 | 97 | 81 |
| Pottery | 307 | 22 | 13 | 65 | 69 | 63 |
| Glass | 91 | 2 | 24 | 74 | 75 | 67 |
| Marble, granite, slate, and other stone products | 129 | 5 | 71 | 23 | 94 | 75 |
| Nonferrous metals and their products | 149 | 7 | 44 | 48 | 86 | 74 |
| Stamped and enameled ware | 425 | 2 | 30 | 69 | 78 | 68 |
| Brass, bronze, and copper products | 60 | | 13 | 87 | 79 | 76 |
| Aluminum manufactures | 120 | 3 | 32 | 66 | 77 | 66 |
| Clocks, time recording devices, and clock movements | 13 | | 31 | 69 | 80 | 71 |
| Gas and electric fixtures, lamps, lanterns, and reflectors | 16 | | 31 | 69 | 73 | 60 |
| Plated ware | 34 | 3 | 35 | 62 | 81 | 69 |
| Smelting and refining—copper, lead, and zinc | 138 | 1 | 28 | 71 | 76 | 67 |
| Jewelry | 26 | 4 | 35 | 62 | 76 | 63 |
| | 18 | | 67 | 33 | 92 | 76 |

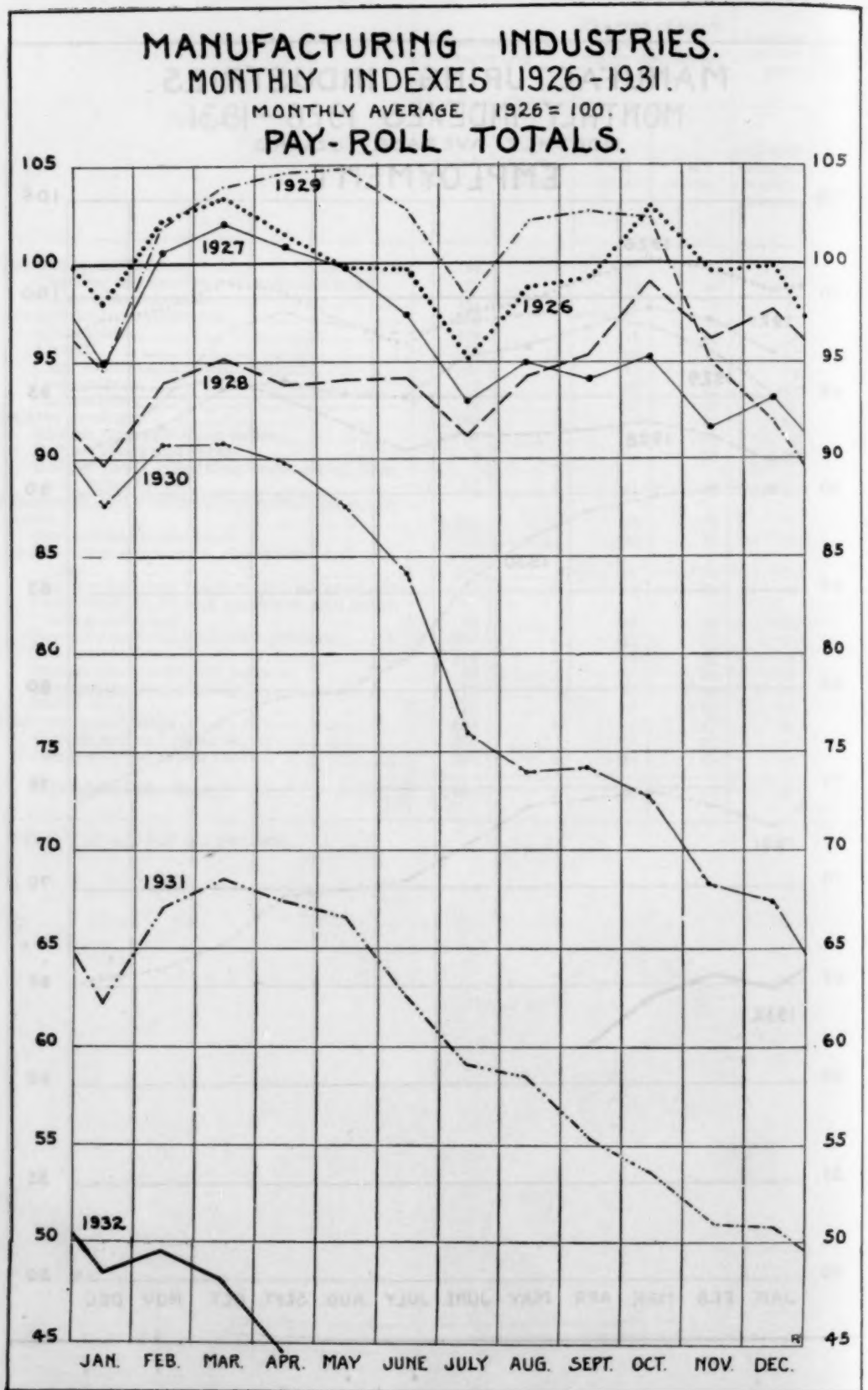
TABLE 5.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN APRIL, 1932—Continued

| Industry | Establishments reporting | | Per cent of establishments in which employees worked— | | Average per cent of full time reported by— | |
|--|--------------------------|---------------|---|-----------|--|------------------------------------|
| | Total number | Per cent idle | Full time | Part time | All operating establishments | Establishments operating part time |
| Tobacco manufactures..... | 194 | 4 | 20 | 77 | 78 | 73 |
| Chewing and smoking tobacco and snuff..... | 27 | | 19 | 81 | 80 | 76 |
| Cigars and cigarettes..... | 167 | 4 | 20 | 76 | 78 | 72 |
| Transportation equipment..... | 300 | 1 | 31 | 68 | 79 | 69 |
| Automobiles..... | 164 | | 14 | 86 | 71 | 66 |
| Aircraft..... | 26 | 12 | 69 | 19 | 94 | 71 |
| Cars, electric and steam railroad..... | 25 | | 12 | 88 | 72 | 69 |
| Locomotives..... | 13 | | 38 | 62 | 84 | 75 |
| Shipbuilding..... | 72 | | 63 | 38 | 93 | 81 |
| Rubber products..... | 133 | 1 | 35 | 65 | 83 | 75 |
| Rubber tires and inner tubes..... | 33 | | 15 | 85 | 78 | 74 |
| Rubber boots and shoes..... | 9 | | 44 | 56 | 86 | 75 |
| Rubber goods, other than boots, shoes, tires, and inner tubes..... | 91 | 1 | 41 | 58 | 85 | 75 |
| Machinery, not including transportation equipment..... | 1,210 | 1 | 23 | 76 | 74 | 66 |
| Agricultural implements..... | 57 | | 25 | 75 | 78 | 71 |
| Electrical machinery, apparatus, and supplies..... | 139 | | 24 | 76 | 79 | 73 |
| Engines, turbines, tractors, and water wheels..... | 52 | 2 | 19 | 79 | 74 | 68 |
| Cash registers, adding machines, and calculating machines..... | 42 | | 48 | 52 | 85 | 71 |
| Foundry and machine-shop products..... | 737 | 1 | 22 | 77 | 72 | 64 |
| Machine tools..... | 116 | 2 | 16 | 82 | 71 | 65 |
| Textile machinery and parts..... | 29 | | 38 | 62 | 79 | 66 |
| Typewriters and supplies..... | 12 | | 42 | 58 | 77 | 60 |
| Radio..... | 26 | | 38 | 62 | 85 | 75 |
| Railroad repair shops..... | 664 | 4 | 53 | 47 | 91 | 81 |
| Electric-railroad repair shops..... | 360 | | 68 | 32 | 95 | 85 |
| Steam-railroad repair shops..... | 304 | 1 | 34 | 65 | 86 | 78 |
| Total, 89 industries..... | 12,662 | 2 | 45 | 52 | 85 | 72 |

¹ Less than one-half of 1 per cent.

MANUFACTURING INDUSTRIES.
MONTHLY INDEXES 1926-1931.
 MONTHLY AVERAGE 1926=100.
EMPLOYMENT.





Employment in Nonmanufacturing Industries in April, 1932

IN THE following table are presented employment and earnings data for 14 groups of nonmanufacturing industries the totals of which also appear in the summary table of employment and earnings.

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN NONMANUFACTURING ESTABLISHMENTS IN MARCH AND APRIL, 1932, AND APRIL, 1931

| Industrial group | Estab-lish-ments report-ing in March and April, 1932 | Employment | | | Earnings | | | Index num-bers April, 1932 (average 1929=100) | |
|--|--|----------------------------------|----------------------|-----------------------------|---|----------------------|-----------------------------|---|-----------|
| | | Number on pay rolls, April, 1932 | Per cent of change | | Amount of pay roll (1 week) April, 1932 | Per cent of change | | Em-ploy-ment | Earn-ings |
| | | | March to April, 1932 | April, 1931, to April, 1932 | | March to April, 1932 | April, 1931, to April, 1932 | | |
| Anthracite mining..... | 160 | 95,851 | -4.9 | -17.7 | \$2,861,565 | +17.7 | -4.3 | 70.1 | 72.0 |
| Bituminous coal mining..... | 1,237 | 162,745 | -12.9 | -23.7 | 2,210,281 | -27.6 | -42.2 | 65.5 | 33.9 |
| Metalliferous mining..... | 262 | 27,714 | -3.8 | -32.2 | 502,676 | -5.6 | -51.4 | 43.3 | 25.0 |
| Quarrying and nonmetallic mining..... | 619 | 21,866 | +5.5 | -36.1 | 363,659 | +4.4 | -52.1 | 48.6 | 30.0 |
| Crude petroleum producing..... | 266 | 21,735 | +6.8 | -21.3 | 663,076 | +3.0 | -32.9 | 54.9 | 44.5 |
| Telephone and telegraph..... | 8,215 | 287,876 | -0.6 | -7.8 | 7,955,314 | -5.5 | -12.2 | 81.2 | 83.4 |
| Power, light, and water..... | 3,541 | 223,200 | -0.8 | -12.7 | 6,811,614 | -3.5 | -15.6 | 84.8 | 82.4 |
| Electric railroad operation and maintenance, exclusive of car shops..... | 491 | 132,645 | +0.5 | -10.1 | 3,864,739 | -2.4 | -18.4 | 78.0 | 70.7 |
| Wholesale trade..... | 2,786 | 73,253 | -1.1 | -9.7 | 2,061,211 | -3.3 | -19.1 | 78.9 | 68.9 |
| Retail trade..... | 13,223 | 347,094 | +0.2 | -9.4 | 7,472,247 | -0.9 | -17.7 | 81.6 | 72.7 |
| Hotels..... | 2,264 | 136,646 | -1.6 | -13.8 | 1,997,490 | -3.9 | -22.6 | 82.7 | 69.6 |
| Canning and preserving..... | 820 | 32,977 | +29.6 | -21.1 | 462,554 | +18.8 | -33.6 | 47.0 | 37.9 |
| Laundries..... | 1,004 | 60,785 | (1) | -9.3 | 1,033,815 | -0.4 | -17.8 | (2) | (2) |
| Dyeing and cleaning..... | 404 | 12,337 | +3.3 | -13.2 | 251,011 | +6.9 | -23.7 | (2) | (2) |

¹ Less than one-tenth of 1 per cent.² Data not available.

Indexes of Employment and Earnings for Nonmanufacturing Industries

INDEX numbers of employment and earnings for the years 1929, 1930, and 1931, and by months, January, 1931, to April, 1932, for 12 of the 14 nonmanufacturing industries appearing in the preceding table are shown in Table 2. Index numbers for the laundering and the dyeing and cleaning groups are not presented as data for the index base year (1929) are not available.

TABLE 2.—INDEXES OF EMPLOYMENT AND EARNINGS FOR NONMANUFACTURING INDUSTRIES, 1929 TO APRIL, 1932

[12-month average, 1929=100]

| Year and month | Anthracite mining | | Bituminous coal mining | | Metalliferous mining | | Quarrying and non-metallic mining | | Crude petroleum producing | | Telephone and telegraph | | Power, light, and water | | Operation and maintenance of electric railroads ¹ | | Wholesale trade | | Retail trade | | Hotels | | Canning and pre-serving | |
|-------------------|----------------------|---------------|------------------------|---------------|----------------------|---------------|-----------------------------------|---------------|---------------------------|---------------|-------------------------|---------------|-------------------------|---------------|--|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|-------------------------|--|
| | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | Em- ploy- ment | Earn- ings | | |
| 1930 average----- | | | | | | | | | | | | | | | | | | | | | | | | |
| 1931 | | | | | | | | | | | | | | | | | | | | | | | | |
| January..... | | | | | | | | | | | | | | | | | | | | | | | | |
| February..... | | | | | | | | | | | | | | | | | | | | | | | | |
| March..... | | | | | | | | | | | | | | | | | | | | | | | | |
| April..... | | | | | | | | | | | | | | | | | | | | | | | | |
| May..... | | | | | | | | | | | | | | | | | | | | | | | | |
| June..... | | | | | | | | | | | | | | | | | | | | | | | | |
| July..... | | | | | | | | | | | | | | | | | | | | | | | | |
| August..... | | | | | | | | | | | | | | | | | | | | | | | | |
| September..... | | | | | | | | | | | | | | | | | | | | | | | | |
| October..... | | | | | | | | | | | | | | | | | | | | | | | | |
| November..... | | | | | | | | | | | | | | | | | | | | | | | | |
| December..... | | | | | | | | | | | | | | | | | | | | | | | | |
| 1931 average----- | | | | | | | | | | | | | | | | | | | | | | | | |
| 1932 | | | | | | | | | | | | | | | | | | | | | | | | |
| January..... | | | | | | | | | | | | | | | | | | | | | | | | |
| February..... | | | | | | | | | | | | | | | | | | | | | | | | |
| March..... | | | | | | | | | | | | | | | | | | | | | | | | |
| April..... | | | | | | | | | | | | | | | | | | | | | | | | |

¹ Not including electric-railroad car building and repairing; see transportation equipment and railroad repair shop groups, manufacturing industries, Table 1² Revised.

Trend of Employment in April, 1932, by States

IN THE following table are shown the fluctuations in employment and earnings in April, as compared with March, 1932, in certain industrial groups, by States. These tabulations have been prepared from information secured directly from reporting establishments and from data supplied by cooperating State agencies. The fluctuations in employment and earnings over the month interval in the combined total of all groups included in this monthly survey, with the exception of the building construction group, are presented, together with the changes in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous-coal mining, crude petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundries, and dyeing and cleaning groups. Information available concerning employment in the building construction industry in certain cities and State localities is presented in a separate table following these State tabulations. In publishing data concerning the public utility group, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group in this State compilation. Due to the extreme seasonal fluctuations in the canning and preserving industry, and the fact that during certain months the activity in this industry in a number of States is negligible, data for this industry are not presented separately. The number of employees and the amount of weekly earnings in March and April as reported by identical establishments in this industry are included, however, in the combined total of "all groups."

As the anthracite mining industry is confined entirely to the State of Pennsylvania, the changes reported in this industry in the summary table are the fluctuations in this industry by State total.

Where the identity of any reporting company would be disclosed by the publication of a State total for any industrial group, figures for the group do not appear in the separate industrial group tabulation but have been included in the State totals for "all groups." Data are not presented for any industrial group where the representation in the State covers less than three establishments.

COMPARISON OF EMPLOYMENT AND EARNINGS IN IDENTICAL ESTABLISHMENTS
IN MARCH AND APRIL, 1932, BY STATES

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

| State | Total—all groups | | | | | Manufacturing | | | | |
|----------------------|--------------------------|---------------------------------|--------------------|--|--------------------|--------------------------|---------------------------------|--------------------|--|--------------------|
| | Number of establishments | Number on pay roll, April, 1932 | Per cent of change | Amount of pay roll (1 week), April, 1932 | Per cent of change | Number of establishments | Number on pay roll, April, 1932 | Per cent of change | Amount of pay roll (1 week), April, 1932 | Per cent of change |
| Alabama | 527 | 53,022 | -1.8 | \$613,481 | -4.8 | 218 | 35,664 | -2.1 | \$409,857 | -3.7 |
| Arkansas | 442 | 14,244 | -3.6 | 213,489 | -6.9 | 181 | 9,196 | -2.3 | 116,539 | -7.8 |
| Arizona | 375 | 11,002 | -1.2 | 251,162 | -0.3 | 66 | 2,110 | +3.9 | 52,485 | +5.4 |
| California | 1,407 | 208,359 | +4.2 | 5,282,365 | +0.9 | 1,143 | 127,093 | +7.4 | 3,091,256 | +2.7 |
| Colorado | 790 | 29,688 | -2.6 | 639,796 | -7.4 | 123 | 10,965 | -0.7 | 234,257 | -0.1 |
| Connecticut | 1,087 | 135,353 | -3.5 | 2,546,705 | -7.4 | 686 | 115,670 | -4.2 | 2,008,750 | -8.8 |
| Delaware | 132 | 9,184 | +1.1 | 181,051 | -4.6 | 53 | 6,200 | -1.1 | 125,078 | -6.1 |
| District of Columbia | 225 | 28,284 | +1.4 | 712,808 | -0.5 | 57 | 4,127 | +0.1 | 147,145 | -2.8 |
| Florida | 560 | 24,466 | -13.2 | 424,575 | -12.9 | 138 | 13,758 | -6.8 | 211,477 | -7.0 |
| Georgia | 648 | 71,582 | -2.0 | 926,317 | -5.4 | 316 | 58,481 | -2.1 | 634,236 | -5.4 |
| Idaho | 195 | 6,903 | -3.5 | 129,510 | -9.3 | 43 | 3,070 | -7.9 | 50,748 | -12.4 |
| Illinois | 1,342 | 276,344 | -6.0 | 6,256,449 | -7.7 | 1,027 | 174,607 | -4.0 | 3,384,247 | -7.3 |
| Indiana | 1,284 | 120,092 | -5.6 | 2,312,760 | -12.6 | 588 | 90,673 | -4.4 | 1,696,472 | -11.3 |
| Iowa | 1,170 | 43,906 | -2.5 | 878,293 | -5.2 | 465 | 23,323 | -3.0 | 455,091 | -2.3 |
| Kansas | 640 | 41,778 | +1.9 | 930,735 | +0.7 | 430 | 23,486 | +1.6 | 531,811 | +1.7 |
| Kentucky | 1,006 | 61,438 | -0.9 | 933,791 | -7.0 | 219 | 22,739 | +1.0 | 350,992 | -3.2 |
| Louisiana | 502 | 30,380 | +3.1 | 477,975 | -0.3 | 219 | 18,687 | +4.6 | 269,203 | +2.5 |
| Maine | 552 | 36,543 | -6.8 | 662,514 | -11.1 | 188 | 29,805 | -8.3 | 510,643 | -13.0 |
| Maryland | 1,885 | 82,607 | -0.3 | 1,635,542 | -0.1 | 473 | 57,357 | -1.3 | 1,044,638 | -2.1 |
| Massachusetts | 1,648 | 329,625 | -3.4 | 7,430,115 | -5.0 | 1,065 | 150,107 | -8.9 | 2,819,639 | -12.7 |
| Michigan | 1,783 | 284,529 | -4.8 | 6,379,738 | -6.2 | 430 | 191,241 | -10.6 | 4,365,543 | -3.0 |
| Minnesota | 1,104 | 61,521 | -3.3 | 1,364,344 | -3.1 | 290 | 31,080 | -0.5 | 651,331 | -2.3 |
| Mississippi | 401 | 9,481 | -3.1 | 122,921 | -7.3 | 77 | 5,296 | -3.9 | 58,670 | -6.7 |
| Missouri | 1,120 | 105,316 | -1.7 | 2,264,212 | -3.7 | 525 | 59,952 | -2.6 | 1,193,464 | -2.4 |
| Montana | 293 | 7,170 | -1.8 | 174,312 | -12.0 | 50 | 2,205 | +2.1 | 45,410 | -3.3 |
| Nebraska | 627 | 22,634 | +0.3 | 524,359 | -1.5 | 133 | 10,873 | +0.9 | 257,221 | +1.4 |
| Nevada | 141 | 1,627 | -0.9 | 44,679 | -2.7 | 26 | 295 | +0.3 | 8,737 | +1.2 |
| New Hampshire | 425 | 28,954 | -10.5 | 512,059 | -14.3 | 167 | 25,334 | -11.8 | 422,691 | -16.4 |
| New Jersey | 1,453 | 188,292 | -2.1 | 4,362,920 | -4.9 | 3,735 | 175,102 | -3.0 | 13,902,395 | -5.9 |
| New Mexico | 177 | 4,542 | -2.3 | 78,209 | -7.1 | 26 | 352 | +5.7 | 6,298 | +0.7 |
| New York | 3,335 | 498,098 | -2.2 | 12,291,988 | -5.3 | 1,660 | 326,594 | -3.8 | 7,628,957 | -6.9 |
| North Carolina | 1,075 | 85,861 | -1.3 | 1,044,790 | -6.3 | 466 | 79,096 | -1.4 | 935,128 | -6.9 |
| North Dakota | 320 | 3,723 | +1.5 | 83,905 | +0.1 | 59 | 1,159 | +2.7 | 28,857 | +1.5 |
| Ohio | 4,448 | 368,745 | -3.9 | 7,313,958 | -8.4 | 1,959 | 274,753 | -4.1 | 5,303,774 | -9.4 |
| Oklahoma | 654 | 25,032 | -0.4 | 558,567 | -2.9 | 128 | 8,613 | +0.8 | 190,309 | +1.8 |
| Oregon | 752 | 26,778 | +3.4 | 548,553 | -0.5 | 178 | 14,907 | +5.2 | 262,335 | +3.5 |
| Pennsylvania | 4,104 | 609,249 | -3.0 | 12,113,457 | -1.4 | 1,750 | 336,878 | -4.1 | 5,469,276 | -9.1 |
| Rhode Island | 553 | 51,754 | -7.0 | 979,427 | -11.6 | 282 | 40,075 | -8.5 | 692,000 | -14.5 |
| South Carolina | 396 | 46,778 | -5.3 | 492,083 | -9.3 | 176 | 42,956 | -5.5 | 423,104 | -10.5 |
| South Dakota | 234 | 5,576 | +0.1 | 130,527 | -5.1 | 48 | 1,953 | -1.3 | 35,842 | -6.8 |
| Tennessee | 777 | 62,094 | -2.9 | 888,597 | -4.3 | 293 | 44,725 | -3.4 | 608,952 | -4.7 |
| Texas | 747 | 59,097 | +0.8 | 1,376,234 | -0.2 | 351 | 31,704 | +0.7 | 655,177 | -0.8 |
| Utah | 264 | 11,832 | -6.2 | 229,385 | -13.9 | 83 | 3,035 | -1.3 | 60,088 | -3.2 |
| Vermont | 363 | 9,510 | -5.1 | 198,707 | -3.0 | 124 | 4,989 | -11.4 | 100,040 | -8.3 |
| Virginia | 1,168 | 77,035 | -0.6 | 1,280,368 | -2.5 | 420 | 57,102 | -0.7 | 927,897 | -2.3 |
| Washington | 1,160 | 49,006 | +0.1 | 1,081,176 | -2.7 | 278 | 23,832 | +1.0 | 460,016 | -1.2 |
| West Virginia | 724 | 82,068 | -2.6 | 1,405,548 | -7.3 | 190 | 33,069 | -2.6 | 634,500 | -7.7 |
| Wisconsin | 1,471 | 95,743 | -2.2 | 1,850,769 | -5.3 | 441 | 64,464 | -4.5 | 1,115,163 | -8.5 |
| Wyoming | 169 | 6,068 | -7.1 | 150,238 | -12.2 | 28 | 1,335 | -6.0 | 42,742 | -8.7 |

¹ Includes building construction.² Includes transportation and financial institutions.³ Includes laundries and dry cleaning.⁴ Bureau of Labor Statistics figures; report compiled by State bureaus not received in time for inclusion in this table.

COMPARISON OF EMPLOYMENT AND EARNINGS IN IDENTICAL ESTABLISHMENTS
IN MARCH AND APRIL, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

| State | Wholesale trade | | | | | Retail trade | | | | |
|---------------------------|--------------------------|--------------------------------|--------------------|---|--------------------|--------------------------|--------------------------------|--------------------|---|--------------------|
| | Number of establishments | Number on pay roll April, 1932 | Per cent of change | Amount of pay roll (1 week) April, 1932 | Per cent of change | Number of establishments | Number on pay roll April, 1932 | Per cent of change | Amount of pay roll (1 week) April, 1932 | Per cent of change |
| Alabama..... | 17 | 596 | -1.5 | \$16,006 | -12.1 | 72 | 2,083 | +0.1 | \$33,373 | -2.7 |
| Arkansas..... | 17 | 477 | -0.4 | 13,979 | +0.1 | 135 | 1,590 | +2.1 | 30,417 | +1.5 |
| Arizona..... | 21 | 195 | +0.5 | 5,502 | +0.1 | 181 | 1,540 | -5.0 | 31,120 | -2.2 |
| California..... | 62 | 4,442 | -0.3 | 135,835 | -1.6 | 91 | 21,280 | -1.5 | 459,450 | -3.2 |
| Colorado..... | 27 | 706 | -1.3 | 21,874 | -1.6 | 312 | 4,364 | -2.1 | 97,493 | -0.8 |
| Connecticut..... | 62 | 1,272 | -1.4 | 38,284 | -3.8 | 127 | 5,302 | +1.5 | 115,582 | +0.3 |
| Delaware..... | 10 | 179 | +5.9 | 4,936 | -0.3 | 14 | 184 | -4.7 | 2,881 | -3.2 |
| District of Columbia..... | 30 | 375 | +1.1 | 12,262 | -2.3 | 39 | 8,508 | -0.7 | 197,390 | -0.2 |
| Florida..... | 55 | 852 | +0.5 | 21,934 | +0.5 | 82 | 1,076 | -15.7 | 23,582 | -15.1 |
| Georgia..... | 31 | 358 | +0.3 | 10,437 | -3.8 | 42 | 2,062 | -4.5 | 36,164 | -3.2 |
| Idaho..... | 7 | 113 | -0.9 | 3,375 | -2.2 | 55 | 587 | +4.3 | 11,559 | -3.9 |
| Illinois..... | 13 | 526 | -5.9 | 13,295 | -5.7 | 64 | 17,731 | -2.8 | 451,406 | -2.9 |
| Indiana..... | 66 | 1,307 | -0.8 | 36,373 | -1.8 | 260 | 6,625 | +2.1 | 128,333 | +1.5 |
| Iowa..... | 34 | 1,023 | -0.6 | 30,274 | -2.0 | 128 | 3,445 | +0.2 | 65,286 | -1.2 |
| Kansas..... | 23 | 755 | -1.0 | 23,069 | +2.8 | 41 | 2,407 | +6.4 | 50,441 | +3.7 |
| Kentucky..... | 24 | 642 | +2.6 | 13,275 | -2.7 | 204 | 2,112 | +1.2 | 39,321 | -1.0 |
| Louisiana..... | 30 | 707 | -2.8 | 15,626 | -3.5 | 55 | 3,100 | +0.4 | 48,589 | -3.3 |
| Maine..... | 17 | 456 | -0.7 | 10,561 | -3.3 | 84 | 1,347 | +1.7 | 25,469 | + ⁽⁵⁾ |
| Maryland..... | 34 | 832 | -1.0 | 19,754 | -0.6 | 38 | 5,219 | +2.0 | 93,511 | +1.8 |
| Massachusetts..... | 679 | 14,310 | -1.4 | 403,791 | -2.6 | 3,879 | 57,931 | -0.3 | 1,282,111 | -1.3 |
| Michigan..... | 66 | 1,811 | +0.2 | 59,764 | -1.7 | 480 | 12,951 | +0.5 | 283,216 | -2.3 |
| Minnesota..... | 61 | 4,012 | -2.8 | 115,402 | -3.7 | 341 | 7,698 | -17.8 | 147,604 | -8.2 |
| Mississippi..... | 5 | 126 | -3.1 | 2,312 | -12.4 | 77 | 471 | -2.5 | 5,709 | -6.9 |
| Missouri..... | 57 | 5,128 | -1.0 | 129,204 | -4.6 | 137 | 6,425 | +0.7 | 132,437 | +0.6 |
| Montana..... | 15 | 248 | -2.4 | 7,566 | -9.2 | 43 | 766 | -0.1 | 17,326 | -2.5 |
| Nebraska..... | 44 | 1,279 | -0.6 | 37,006 | -3.1 | 94 | 1,371 | +1.0 | 26,751 | +0.1 |
| Nevada..... | 7 | 86 | ⁽⁵⁾ | 3,276 | -8.0 | 35 | 288 | +3.6 | 7,700 | +0.6 |
| New Hampshire..... | 15 | 167 | +0.6 | 4,678 | -1.6 | 64 | 596 | -3.1 | 11,235 | -4.2 |
| New Jersey..... | 33 | 694 | -0.6 | 21,887 | -2.2 | 415 | 7,779 | +0.2 | 181,054 | -2.8 |
| New Mexico..... | 10 | 114 | -3.4 | 4,240 | -4.3 | 42 | 258 | +1.6 | 6,339 | -5.5 |
| New York..... | 189 | 5,670 | +0.9 | 188,091 | -1.7 | 366 | 48,301 | +2.3 | 1,169,063 | +0.4 |
| North Carolina..... | 21 | 484 | +0.2 | 12,068 | -0.9 | 437 | 1,987 | -0.1 | 31,947 | -0.4 |
| North Dakota..... | 16 | 226 | +1.3 | 6,724 | -1.6 | 41 | 433 | -7.2 | 7,316 | +4.8 |
| Ohio..... | 225 | 4,971 | -1.3 | 137,237 | -4.1 | 1,311 | 31,932 | +3.6 | 634,602 | +0.5 |
| Oklahoma..... | 45 | 858 | -6.5 | 25,161 | -2.9 | 74 | 1,555 | +2.8 | 30,950 | -0.5 |
| Oregon..... | 61 | 1,414 | -2.8 | 41,891 | -1.4 | 250 | 2,509 | -1.2 | 53,986 | -3.1 |
| Pennsylvania..... | 140 | 3,513 | +0.3 | 96,848 | -2.9 | 345 | 26,976 | +2.4 | 558,453 | -0.1 |
| Rhode Island..... | 46 | 1,075 | -0.1 | 27,514 | -4.3 | 150 | 5,034 | -2.4 | 112,804 | -3.0 |
| South Carolina..... | 19 | 275 | -3.2 | 6,468 | -2.2 | 92 | 755 | +1.1 | 10,372 | -1.4 |
| South Dakota..... | 11 | 138 | ⁽⁵⁾ | 4,299 | -3.1 | 21 | 342 | +22.1 | 5,347 | -2.7 |
| Tennessee..... | 37 | 718 | +1.4 | 14,697 | -4.3 | 87 | 3,634 | -0.7 | 61,274 | -0.5 |
| Texas..... | 132 | 2,770 | -3.9 | 79,676 | -1.6 | 78 | 6,996 | +5.3 | 140,307 | +1.2 |
| Utah..... | 16 | 500 | -1.4 | 12,257 | -7.3 | 14 | 345 | +4.5 | 5,985 | -2.0 |
| Vermont..... | 5 | 109 | +1.9 | 2,883 | +1.3 | 51 | 530 | +3.5 | 9,649 | -0.4 |
| Virginia..... | 41 | 1,284 | -10.0 | 26,442 | -10.6 | 415 | 3,911 | -0.7 | 76,440 | -0.3 |
| Washington..... | 95 | 2,342 | +2.0 | 70,062 | -1.7 | 424 | 6,528 | -2.8 | 141,882 | +2.2 |
| West Virginia..... | 42 | 622 | -3.0 | 18,751 | -4.7 | 52 | 975 | +1.6 | 18,938 | +0.7 |
| Wisconsin..... | 45 | 1,594 | +0.6 | 42,756 | -2.5 | 576 | 9,433 | +4.0 | 205,509 | +2.6 |
| Wyoming..... | 10 | 88 | -4.3 | 3,255 | -0.9 | 21 | 177 | -1.7 | 4,856 | -2.2 |

⁵ Less than one-tenth of 1 per cent.⁶ No change.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS
IN MARCH AND APRIL, 1932, BY STATES—Continued[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued
by cooperating State organizations]

| State | Quarrying and nonmetallic mining | | | | | Metalliferous mining | | | | |
|---------------------------|----------------------------------|---------------------------------|--------------------|--|--------------------|--------------------------|---------------------------------|--------------------|--|--------------------|
| | Number of establishments | Number on pay roll, April, 1932 | Per cent of change | Amount of pay roll (1 week), April, 1932 | Per cent of change | Number of establishments | Number on pay roll, April, 1932 | Per cent of change | Amount of pay roll (1 week), April, 1932 | Per cent of change |
| Alabama..... | 6 | 274 | -7.4 | \$3,223 | -13.3 | 6 | 1,101 | -1.1 | \$11,376 | -14.5 |
| Arkansas..... | 9 | 195 | +13.4 | 2,290 | +4.8 | | | | | |
| Arizona..... | | | | | | 14 | 4,658 | -2.1 | 107,915 | +1.2 |
| California..... | 30 | 782 | -3.0 | 17,422 | -4.3 | 21 | 1,680 | -3.3 | 45,875 | -3.4 |
| Colorado..... | | | | | | 15 | 693 | -3.7 | 18,741 | -2.1 |
| Connecticut..... | 10 | 273 | +13.7 | 4,338 | -6.3 | | | | | |
| Delaware..... | | | | | | | | | | |
| District of Columbia..... | | | | | | | | | | |
| Florida..... | 7 | 418 | +0.7 | 5,899 | -0.8 | | | | | |
| Georgia..... | 16 | 751 | +0.4 | 7,912 | -12.6 | | | | | |
| Idaho..... | | | | | | 12 | 2,071 | -1.3 | 43,664 | -9.4 |
| Illinois..... | 27 | 556 | +21.9 | 9,134 | +8.1 | | | | | |
| Indiana..... | 34 | 1,613 | +4.5 | 28,955 | +11.4 | | | | | |
| Iowa..... | 18 | 255 | +19.7 | 4,448 | +31.7 | | | | | |
| Kansas..... | 20 | 856 | +5.9 | 19,996 | +1.0 | 7 | 309 | +7.3 | 5,282 | +30.2 |
| Kentucky..... | 26 | 622 | +17.6 | 5,126 | +29.8 | | | | | |
| Louisiana..... | 3 | 248 | +3.8 | 2,842 | +18.9 | | | | | |
| Maine..... | 5 | 82 | -41.8 | 2,579 | -48.7 | | | | | |
| Maryland..... | 18 | 445 | +29.0 | 6,691 | +49.0 | | | | | |
| Massachusetts..... | | | | | | | | | | |
| Michigan..... | 17 | 848 | -5.0 | 9,877 | -36.5 | 43 | 7,957 | -3.9 | 85,590 | -6.8 |
| Minnesota..... | 5 | 135 | +50.0 | 2,839 | +38.1 | 33 | 839 | -11.0 | 12,065 | -26.8 |
| Mississippi..... | 3 | 44 | -35.3 | 346 | -45.0 | | | | | |
| Missouri..... | 15 | 296 | +5.0 | 3,878 | +8.5 | 11 | 1,051 | -6.7 | 21,287 | -6.7 |
| Montana..... | 3 | 32 | +220.0 | 411 | +105.5 | 13 | 37 | -51.9 | 841 | -28.6 |
| Nebraska..... | 3 | 101 | +90.6 | 1,718 | +260.9 | | | | | |
| Nevada..... | | | | | | 16 | 340 | -11.9 | 9,332 | -8.0 |
| New Hampshire..... | 9 | 88 | +37.5 | 1,577 | +9.9 | | | | | |
| New Jersey..... | 3 | 53 | +55.9 | 1,186 | +30.6 | 3 | 112 | (6) | 1,745 | -29.1 |
| New Mexico..... | | | | | | 4 | 786 | -1.5 | 13,733 | -5.7 |
| New York..... | 42 | 1,781 | +17.2 | 37,089 | +14.5 | | | | | |
| North Carolina..... | 8 | 108 | -11.5 | 1,477 | -1.7 | | | | | |
| North Dakota..... | | | | | | | | | | |
| Ohio..... | 56 | 1,558 | +7.6 | 29,987 | +11.9 | | | | | |
| Oklahoma..... | 4 | 73 | +1.4 | 995 | -12.6 | 28 | 605 | -16.0 | 10,655 | -18.8 |
| Oregon..... | | | | | | 4 | 77 | +2.7 | 1,566 | -0.2 |
| Pennsylvania..... | 60 | 2,810 | +5.7 | 33,850 | +6.4 | | | | | |
| Rhode Island..... | | | | | | | | | | |
| South Carolina..... | 5 | 99 | +10.0 | 768 | +1.6 | | | | | |
| South Dakota..... | | | | | | | | | | |
| Tennessee..... | 21 | 1,019 | -12.6 | 14,331 | -4.4 | 4 | 308 | -3.1 | 3,449 | -8.9 |
| Texas..... | 22 | 574 | +11.2 | 12,993 | +12.3 | | | | | |
| Utah..... | | | | | | 13 | 2,601 | -4.8 | 47,265 | -6.9 |
| Vermont..... | 39 | 2,350 | +5.6 | 54,401 | +7.0 | | | | | |
| Virginia..... | 18 | 995 | +6.0 | 9,872 | +6.6 | | | | | |
| Washington..... | 7 | 117 | -6.4 | 2,476 | -8.7 | | | | | |
| West Virginia..... | 7 | 423 | -8.8 | 5,073 | -4.8 | | | | | |
| Wisconsin..... | 10 | 289 | +68.0 | 4,784 | +38.7 | | | | | |
| Wyoming..... | | | | | | | | | | |

(6) No change.

TREND OF EMPLOYMENT

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COMPARISON OF EMPLOYMENT AND EARNINGS IN IDENTICAL ESTABLISHMENTS
IN MARCH AND APRIL, 1932, BY STATES—Continued[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued
by cooperating State organizations]

| State | Bituminous coal mining | | | | | Crude petroleum producing | | | | |
|---------------------------|--------------------------|--------------------------------|--------------------|---|--------------------|---------------------------|--------------------------------|--------------------|---|--------------------|
| | Number of establishments | Number on pay roll April, 1932 | Per cent of change | Amount of pay roll (1 week) April, 1932 | Per cent of change | Number of establishments | Number on pay roll April, 1932 | Per cent of change | Amount of pay roll (1 week) April, 1932 | Per cent of change |
| Alabama..... | 44 | 9,153 | -1.8 | \$73,780 | -11.2 | | | | | |
| Arkansas..... | 5 | 136 | -47.2 | 992 | -57.0 | 7 | 209 | +4.0 | \$4,900 | -1.8 |
| Arizona..... | | | | | | | | | | |
| California..... | | | | | | 40 | 5,380 | +23.0 | 182,568 | +14.9 |
| Colorado..... | 44 | 4,571 | -11.6 | 65,562 | -39.7 | | | | | |
| Connecticut..... | | | | | | | | | | |
| Delaware..... | | | | | | | | | | |
| District of Columbia..... | | | | | | | | | | |
| Florida..... | | | | | | | | | | |
| Georgia..... | | | | | | | | | | |
| Idaho..... | | | | | | | | | | |
| Illinois..... | 53 | 473 | -95.7 | 14,082 | -95.4 | 8 | 199 | -1.0 | 3,815 | -4.8 |
| Indiana..... | 46 | 2,840 | -52.8 | 63,181 | -63.5 | 3 | 13 | +8.3 | 161 | +3.2 |
| Iowa..... | 23 | 2,529 | -8.6 | 37,932 | -44.4 | | | | | |
| Kansas..... | 21 | 1,825 | -5.4 | 27,047 | -25.6 | 30 | 1,137 | +3.6 | 29,284 | +6.7 |
| Kentucky..... | 152 | 24,313 | -3.9 | 303,624 | -15.9 | 7 | 179 | -3.2 | 3,162 | -10.4 |
| Louisiana..... | | | | | | 7 | 142 | +22.4 | 4,071 | +31.4 |
| Maine..... | | | | | | | | | | |
| Maryland..... | 14 | 1,413 | +0.4 | 16,635 | -12.0 | | | | | |
| Massachusetts..... | | | | | | | | | | |
| Michigan..... | | | | | | | | | | |
| Minnesota..... | | | | | | | | | | |
| Mississippi..... | | | | | | | | | | |
| Missouri..... | 18 | 909 | -24.9 | 16,061 | -39.2 | | | | | |
| Montana..... | 10 | 960 | -5.0 | 20,523 | -36.7 | 5 | 51 | +4.1 | 1,215 | -7.8 |
| Nebraska..... | | | | | | | | | | |
| Nevada..... | | | | | | | | | | |
| New Hampshire..... | | | | | | | | | | |
| New Jersey..... | | | | | | | | | | |
| New Mexico..... | 13 | 1,886 | -3.1 | 26,276 | -13.1 | 4 | 45 | -19.6 | 1,552 | -0.7 |
| New York..... | | | | | | 5 | 189 | +4.4 | 4,637 | -5.2 |
| North Carolina..... | | | | | | | | | | |
| North Dakota..... | | | | | | | | | | |
| Ohio..... | 54 | 4,652 | -45.9 | 46,854 | -68.6 | 6 | 71 | +9.2 | 1,185 | -5.7 |
| Oklahoma..... | 16 | 309 | -38.3 | 4,753 | -31.9 | 62 | 4,770 | +5.0 | 126,052 | -2.1 |
| Oregon..... | | | | | | | | | | |
| Pennsylvania..... | 391 | 54,597 | -0.4 | 751,643 | -2.6 | 18 | 359 | +0.3 | 8,973 | -5.5 |
| Rhode Island..... | | | | | | | | | | |
| South Carolina..... | | | | | | | | | | |
| South Dakota..... | | | | | | | | | | |
| Tennessee..... | 17 | 2,758 | -2.7 | 27,392 | -4.5 | | | | | |
| Texas..... | | | | | | 3 | 6,250 | -0.2 | 229,424 | -2.9 |
| Utah..... | 14 | 1,790 | -22.5 | 35,341 | -44.4 | | | | | |
| Vermont..... | | | | | | | | | | |
| Virginia..... | 24 | 3,934 | -3.6 | 38,707 | -11.6 | | | | | |
| Washington..... | 11 | 1,491 | -1.9 | 32,187 | -6.8 | | | | | |
| West Virginia..... | 251 | 38,498 | -3.1 | 528,139 | -8.0 | 9 | 341 | -11.7 | 5,288 | -15.0 |
| Wisconsin..... | | | | | | | | | | |
| Wyoming..... | 32 | 3,470 | -10.0 | 76,166 | -17.5 | 7 | 163 | +1.9 | 4,932 | -0.2 |

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS
IN MARCH AND APRIL, 1932, BY STATES—Continued[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued
by cooperating State organizations]

| State | Public utilities | | | | | Hotels | | | | |
|---------------------------|--------------------------|---------------------------------|--------------------|--|--------------------|--------------------------|---------------------------------|--------------------|--|--------------------|
| | Number of establishments | Number on pay roll, April, 1932 | Per cent of change | Amount of pay roll (1 week), April, 1932 | Per cent of change | Number of establishments | Number on pay roll, April, 1932 | Per cent of change | Amount of pay roll (1 week), April, 1932 | Per cent of change |
| Alabama..... | 123 | 2,069 | -1.3 | \$45,294 | +0.1 | 29 | 1,279 | +0.3 | \$12,481 | +0.7 |
| Arkansas..... | 46 | 1,170 | -15.0 | 30,864 | -12.7 | 17 | 981 | -0.6 | 11,810 | -1.3 |
| Arizona..... | 64 | 1,547 | +5.4 | 38,181 | -5.2 | 15 | 449 | -16.9 | 7,417 | -17.4 |
| California..... | 40 | 49,478 | +(⁶) | 1,472,072 | -1.0 | 235 | 10,904 | -3.1 | 191,254 | -4.8 |
| Colorado..... | 198 | 5,891 | -0.7 | 157,035 | -4.3 | 32 | 1,154 | +2.5 | 18,243 | -0.3 |
| Connecticut..... | 134 | 10,260 | +0.3 | 337,381 | -2.3 | 30 | 1,220 | +1.2 | 17,036 | -0.9 |
| Delaware..... | 28 | 1,102 | +2.5 | 30,538 | +0.5 | 6 | 270 | (⁶) | 3,595 | -1.3 |
| District of Columbia..... | 22 | 8,479 | +1.4 | 246,466 | -0.9 | 51 | 4,550 | +6.4 | 70,986 | +4.3 |
| Florida..... | 183 | 4,357 | -1.7 | 117,266 | -8.7 | 60 | 2,765 | -33.0 | 33,319 | -41.4 |
| Georgia..... | 184 | 7,474 | -1.3 | 214,020 | -5.9 | 32 | 1,539 | +0.3 | 14,256 | -4.2 |
| Idaho..... | 57 | 742 | +1.5 | 15,019 | -6.0 | 15 | 254 | -0.4 | 3,741 | -4.8 |
| Illinois..... | 61 | 72,307 | +1.2 | 2,199,894 | +2.2 | 750 | 8,376 | -2.5 | 142,520 | -2.0 |
| Indiana..... | 135 | 10,642 | -1.7 | 270,122 | -5.2 | 59 | 2,896 | +8.9 | 36,737 | +6.6 |
| Iowa..... | 427 | 10,325 | -1.0 | 250,248 | -2.1 | 55 | 2,402 | -5.4 | 26,188 | -5.0 |
| Kansas..... | 24 | 7,555 | +3.2 | 187,686 | +1.8 | 21 | 636 | +5.8 | 7,267 | -0.3 |
| Kentucky..... | 303 | 7,385 | -0.1 | 173,751 | -1.1 | 37 | 2,062 | +4.5 | 24,552 | +5.0 |
| Louisiana..... | 153 | 4,649 | -1.8 | 111,032 | -5.3 | 21 | 2,009 | -3.3 | 23,523 | -3.7 |
| Maine..... | 172 | 3,101 | +0.6 | 87,533 | -3.4 | 7 | 499 | -5.1 | 7,762 | -1.0 |
| Maryland..... | 92 | 12,119 | -0.1 | 368,609 | +4.0 | 24 | 1,573 | +0.2 | 22,075 | -2.0 |
| Massachusetts..... | 138 | 47,980 | -1.6 | 1,447,253 | -2.3 | 99 | 5,395 | -0.6 | 86,265 | +2.9 |
| Michigan..... | 416 | 24,993 | -0.2 | 717,978 | -5.1 | 71 | 4,004 | +0.4 | 57,628 | -0.3 |
| Minnesota..... | 267 | 13,262 | -0.9 | 368,260 | -1.8 | 59 | 2,958 | -1.4 | 40,905 | -2.3 |
| Mississippi..... | 202 | 2,227 | -3.2 | 44,070 | -8.8 | 23 | 722 | +0.4 | 6,908 | -2.7 |
| Missouri..... | 218 | 23,340 | +0.4 | 651,240 | -5.6 | 78 | 4,612 | +0.6 | 60,272 | -1.8 |
| Montana..... | 113 | 2,136 | -4.6 | 67,098 | -11.5 | 19 | 294 | +1.4 | 4,840 | -1.0 |
| Nebraska..... | 300 | 6,298 | -0.8 | 162,774 | -5.8 | 36 | 1,656 | -4.3 | 20,110 | -11.3 |
| Nevada..... | 40 | 403 | +5.2 | 11,470 | -2.7 | 12 | 146 | (⁶) | 2,541 | -0.7 |
| New Hampshire..... | 145 | 2,291 | -0.9 | 64,812 | -2.8 | 8 | 196 | -1.0 | 2,560 | -0.2 |
| New Jersey..... | 277 | 24,489 | -(⁶) | 770,454 | -3.2 | 56 | 3,914 | +0.2 | 55,203 | -2.5 |
| New Mexico..... | 56 | 564 | -3.3 | 12,406 | -3.1 | 15 | 285 | -5.6 | 3,400 | -5.9 |
| New York..... | 919 | 109,817 | -0.9 | 3,483,174 | -4.6 | 209 | 28,663 | -2.2 | 484,624 | -3.9 |
| North Carolina..... | 97 | 1,947 | -1.6 | 39,640 | -2.2 | 28 | 1,354 | +2.4 | 14,263 | -1.1 |
| North Dakota..... | 171 | 1,235 | -1.8 | 31,885 | -1.4 | 20 | 408 | +3.3 | 4,487 | -3.6 |
| Ohio..... | 480 | 33,452 | -0.6 | 886,735 | -2.6 | 174 | 9,612 | -0.7 | 137,790 | -1.4 |
| Oklahoma..... | 245 | 6,483 | -0.9 | 148,771 | -7.0 | 38 | 901 | +0.6 | 8,869 | -3.0 |
| Oregon..... | 184 | 5,842 | +1.7 | 156,584 | -5.4 | 41 | 1,078 | -1.4 | 17,003 | -5.8 |
| Pennsylvania..... | 704 | 54,151 | -0.9 | 1,620,452 | -4.0 | 139 | 9,415 | +0.1 | 132,750 | -4.2 |
| Rhode Island..... | 35 | 3,751 | -1.3 | 114,266 | -4.7 | 14 | 387 | -0.5 | 5,803 | -4.1 |
| South Carolina..... | 70 | 1,766 | -4.5 | 42,194 | +0.4 | 17 | 401 | -7.2 | 3,817 | -11.8 |
| South Dakota..... | 128 | 1,076 | -1.8 | 28,691 | -7.3 | 15 | 318 | (⁶) | 4,064 | -2.8 |
| Tennessee..... | 251 | 5,242 | -0.5 | 122,142 | -4.2 | 41 | 2,509 | +1.7 | 23,939 | -2.8 |
| Texas..... | 112 | 7,435 | -0.9 | 215,685 | -1.6 | 49 | 3,368 | +0.2 | 42,972 | -3.5 |
| Utah..... | 69 | 1,898 | -3.2 | 41,003 | -5.5 | 13 | 542 | -2.9 | 8,391 | -2.1 |
| Vermont..... | 117 | 1,038 | -0.1 | 25,334 | -1.8 | 17 | 376 | -2.6 | 4,627 | -2.3 |
| Virginia..... | 178 | 6,291 | +0.7 | 157,330 | -2.3 | 37 | 2,308 | +6.8 | 28,458 | +2.6 |
| Washington..... | 204 | 10,232 | -1.0 | 299,532 | -6.6 | 61 | 2,199 | +0.5 | 30,479 | -3.1 |
| West Virginia..... | 123 | 6,462 | +1.2 | 168,489 | -5.4 | 16 | 654 | +0.5 | 7,958 | -2.9 |
| Wisconsin..... | 275 | 16,007 | +2.1 | 419,401 | -1.0 | 30 | 1,597 | -3.3 | 22,121 | -4.8 |
| Wyoming..... | 47 | 447 | -0.4 | 11,040 | -5.4 | 14 | 201 | +0.5 | 3,273 | -4.0 |

⁵ Less than one-tenth of 1 per cent.⁶ No change.⁷ Includes restaurants.

COMPARISON OF EMPLOYMENT AND EARNINGS IN IDENTICAL ESTABLISHMENTS
IN MARCH AND APRIL, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

| State | Laundries | | | | | Dyeing and cleaning | | | | |
|---------------------------|--------------------------|--------------------------------|--------------------|---|--------------------|--------------------------|--------------------------------|--------------------|---|--------------------|
| | Number of establishments | Number on pay roll April, 1932 | Per cent of change | Amount of pay roll (1 week) April, 1932 | Per cent of change | Number of establishments | Number on pay roll April, 1932 | Per cent of change | Amount of pay roll (1 week) April, 1932 | Per cent of change |
| Alabama..... | 5 | 478 | +1.9 | \$4,839 | -3.8 | 4 | 161 | -4.2 | \$1,965 | -3.7 |
| Arkansas..... | 19 | 512 | +1.2 | 5,264 | -1.8 | 3 | 34 | +3.0 | 447 | +2.8 |
| Arizona..... | 10 | 459 | -3.6 | 7,613 | -4.7 | | | | | |
| California..... | ⁸ 71 | 6,961 | -1.4 | 123,772 | -3.1 | | | | | |
| Colorado..... | 11 | 889 | -0.7 | 14,261 | +0.3 | 12 | 165 | +10.7 | 3,379 | +6.9 |
| Connecticut..... | 28 | 1,036 | -1.1 | 19,645 | -1.5 | 9 | 215 | +1.4 | 5,434 | +2.9 |
| Delaware..... | 4 | 316 | (⁶) | 5,154 | -1.9 | 3 | 35 | +2.9 | 573 | +3.6 |
| District of Columbia..... | 19 | 2,098 | +1.9 | 35,444 | +0.3 | 6 | 141 | +4.4 | 2,999 | +9.2 |
| Florida..... | 9 | 428 | -2.3 | 5,081 | -4.0 | 6 | 50 | +6.4 | 845 | +10.5 |
| Georgia..... | 14 | 673 | +2.7 | 6,911 | +2.0 | 4 | 133 | -2.2 | 1,659 | -1.1 |
| Idaho..... | | | | | | | | | | |
| Illinois..... | ⁸ 21 | 1,506 | -0.9 | 25,012 | -0.8 | | | | | |
| Indiana..... | 21 | 1,732 | -0.3 | 25,765 | -0.1 | 13 | 216 | +2.9 | 3,983 | +3.0 |
| Iowa..... | 4 | 236 | +5.8 | 4,033 | +4.8 | | | | | |
| Kansas..... | 24 | 1,032 | +0.2 | 15,604 | +2.9 | 3 | 21 | (⁶) | 302 | -1.9 |
| Kentucky..... | 19 | 821 | +2.2 | 11,046 | +0.2 | 5 | 237 | +3.5 | 3,900 | +8.2 |
| Louisiana..... | | | | | | 3 | 35 | +9.4 | 495 | +7.6 |
| Maine..... | 23 | 481 | +0.2 | 7,629 | +1.0 | 4 | 119 | +4.4 | 2,216 | +4.6 |
| Maryland..... | 23 | 1,931 | +2.5 | 30,573 | +1.2 | 13 | 185 | +8.2 | 3,290 | +3.2 |
| Massachusetts..... | 77 | 2,639 | -0.1 | 48,141 | -1.4 | 116 | 1,284 | +3.0 | 27,465 | +14.5 |
| Michigan..... | 25 | 1,730 | -0.7 | 26,897 | -0.8 | 18 | 518 | +9.5 | 11,324 | +19.4 |
| Minnesota..... | 15 | 811 | +1.1 | 14,442 | +2.6 | 12 | 345 | +6.8 | 7,007 | +12.5 |
| Mississippi..... | 5 | 235 | -3.3 | 2,228 | -5.2 | | | | | |
| Missouri..... | 37 | 2,867 | -0.3 | 42,098 | -0.9 | 15 | 449 | +6.1 | 8,291 | +13.1 |
| Montana..... | 17 | 402 | -1.2 | 8,233 | -0.4 | 3 | 17 | (⁶) | 433 | -3.8 |
| Nebraska..... | 9 | 777 | +3.7 | 13,458 | +3.6 | 5 | 155 | +9.9 | 3,554 | +7.7 |
| Nevada..... | 4 | 60 | +1.7 | 1,399 | +0.9 | | | | | |
| New Hampshire..... | 15 | 258 | +0.4 | 4,112 | +0.3 | | | | | |
| New Jersey..... | 28 | 3,024 | +0.2 | 65,260 | +1.1 | 9 | 351 | +2.9 | 10,727 | +16.0 |
| New Mexico..... | 6 | 246 | -2.0 | 3,718 | -1.0 | | | | | |
| New York..... | 70 | 7,112 | +1.6 | 133,375 | +1.3 | 21 | 666 | +3.1 | 14,940 | +13.0 |
| North Carolina..... | 13 | 794 | +0.9 | 9,255 | -0.3 | 4 | 63 | -4.5 | 812 | +11.5 |
| North Dakota..... | 11 | 238 | +0.8 | 4,177 | +0.2 | | | | | |
| Ohio..... | 77 | 4,590 | (⁶) | 79,962 | +1.1 | 42 | 1,772 | +4.1 | 35,017 | +12.3 |
| Oklahoma..... | 7 | 619 | -1.6 | 8,457 | -2.3 | 6 | 235 | -0.4 | 3,453 | -2.0 |
| Oregon..... | 4 | 272 | (⁶) | 4,735 | +3.6 | 5 | 46 | -4.2 | 1,186 | +1.2 |
| Pennsylvania..... | 49 | 3,703 | +1.5 | 61,290 | +0.4 | 26 | 1,139 | +2.6 | 22,846 | +4.8 |
| Rhode Island..... | 19 | 1,126 | +0.4 | 21,017 | -0.4 | 5 | 277 | +1.5 | 5,450 | +3.0 |
| South Carolina..... | 9 | 341 | -1.2 | 3,490 | -2.2 | | | | | |
| South Dakota..... | 7 | 156 | -1.9 | 2,476 | -2.2 | | | | | |
| Tennessee..... | 14 | 1,002 | -2.2 | 9,719 | -2.8 | 7 | 67 | -5.6 | 999 | -11.6 |
| Texas..... | 21 | 940 | -1.6 | 11,543 | -3.5 | 17 | 333 | -0.3 | 5,966 | +4.0 |
| Utah..... | 7 | 568 | -0.2 | 8,644 | +0.4 | 7 | 127 | +3.3 | 2,662 | +11.1 |
| Vermont..... | 6 | 77 | (⁶) | 1,058 | -0.9 | 3 | 26 | (⁶) | 470 | +3.3 |
| Virginia..... | 11 | 799 | +0.9 | 9,531 | -5.4 | 18 | 277 | +1.8 | 4,180 | +4.8 |
| Washington..... | 16 | 783 | -2.5 | 18,238 | -0.8 | 11 | 121 | +3.5 | 2,475 | +11.3 |
| West Virginia..... | 23 | 792 | -2.5 | 11,281 | -1.1 | 11 | 232 | +0.4 | 3,731 | -0.2 |
| Wisconsin..... | 19 | 611 | -3.2 | 9,012 | -3.1 | 5 | 193 | +3.2 | 3,914 | +9.9 |
| Wyoming..... | 6 | 123 | +1.7 | 2,507 | +5.3 | | | | | |

⁸ Less than one-tenth of 1 per cent.⁶ No change.⁵ Includes dyeing and cleaning.

Employment and Pay Roll in April, 1932, in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and earnings in April, 1932, as compared with March, 1932, in 13 cities of the United States having a population of 500,000 or over. These fluctuations are based on reports received from identical establishments in each of the months considered.

These city tabulations include all establishments reporting in all of the industrial groups, except building construction in these 13 cities, and also additional employment information secured from banks, insurance companies, garages, and other establishments in these 13 cities. Building construction data are not included in these totals, as information is not available for all cities at this time.

COMPARISON OF EMPLOYMENT AND PAY ROLL IN CITIES OF OVER 500,000 POPULATION, MARCH AND APRIL, 1932

| Cities | Number of establishments reporting in both months | Number on pay roll | | Percent of change | Amount of pay roll (1 week) | | Percent of change |
|---------------------------|---|--------------------|-------------|-------------------|-----------------------------|-------------|-------------------|
| | | March, 1932 | April, 1932 | | March, 1932 | April, 1932 | |
| New York City..... | 1,711 | 296,649 | 292,885 | -1.3 | \$8,773,847 | \$8,341,833 | -4.9 |
| Chicago, Ill..... | 1,846 | 210,394 | 203,992 | -3.0 | 5,500,791 | 5,214,985 | -5.2 |
| Philadelphia, Pa..... | 651 | 116,445 | 111,979 | -3.8 | 2,731,166 | 2,487,525 | -8.9 |
| Detroit, Mich..... | 563 | 193,008 | 183,708 | -4.8 | 4,847,269 | 4,649,720 | -4.1 |
| Los Angeles, Calif..... | 434 | 53,815 | 53,666 | -0.3 | 1,379,154 | 1,339,525 | -2.9 |
| Cleveland, Ohio..... | 993 | 82,865 | 79,578 | -4.0 | 1,864,088 | 1,736,060 | -6.9 |
| St. Louis, Mo..... | 488 | 69,494 | 68,027 | -2.1 | 1,562,997 | 1,502,603 | -3.9 |
| Baltimore, Md..... | 549 | 49,213 | 48,738 | -1.0 | 1,028,998 | 991,878 | -3.6 |
| Boston, Mass..... | 2,453 | 87,920 | 86,018 | -2.2 | 2,313,667 | 2,217,069 | -4.2 |
| Pittsburgh, Pa..... | 312 | 49,902 | 49,343 | -1.1 | 1,070,461 | 1,041,384 | -2.7 |
| San Francisco, Calif..... | 885 | 40,550 | 39,883 | -1.6 | 1,070,661 | 1,018,840 | -4.8 |
| Buffalo, N. Y..... | 262 | 41,546 | 41,470 | -0.2 | 1,003,636 | 999,044 | -0.5 |
| Milwaukee, Wis..... | 453 | 39,315 | 38,361 | -2.4 | 838,659 | 798,047 | -4.8 |

Employment in Executive Civil Service of the United States, April, 1932

THE table following shows for the months of April, 1931, and March and April, 1932, the number of officers and employees of the executive civil service of the United States Government. The figures are complete except for temporary employees in the field service of the Post Office Department. The number of temporary employees in this department varies greatly, mainly because of seasonal demand. The principal demand for such workers is during the Christmas mail rush. Their term of service is usually quite brief.

As indicated by the title of this article, the figures do not include the legislative, judicial, or Army and Navy services. The data are compiled by the various Federal departments and offices and sent to the United States Civil Service Commission where they are assembled. They are published here by courtesy of the commission and in compliance with the direction of Congress. No information has yet been collected relative to the amounts of pay rolls. Because of the importance of Washington as a Government center the figures for the District of Columbia are shown separately and included in the total for the entire service.

At the end of April, 1932, there were 575,338 employees in the executive civil service of the United States. Of this number, 544,986

were permanent employees and 30,352 were temporary employees. In the interval between April, 1931, and April, 1932, there was a gain of 2,709 employees, or 0.44 per cent. Comparing the number on the pay roll on April 30, 1932, with the March 31, 1932, figure there were a gain of 519, or 0.09 per cent.

The number of employees in the District of Columbia, however, showed a decrease of 2,774, or 3.84 per cent comparing April, 1932, with April, 1931, and a decrease of 28 or less than one-tenth of 1 per cent comparing April, 1932, with March, 1932.

During the month of April, 1932, 14,490 employees were hired in the entire Federal service and 13,971 employees were separated from the service because of resignation, termination of employment, death, retirement, or other causes. This gives a net turnover rate of 2.43 during the month.

The turnover rate for the District of Columbia was less than one-half that for the entire service, this being only 0.98 per cent. There were 69,454 employees on the Government pay roll in the District of Columbia at the end of April, 1932.

EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES, APRIL, 1931; MARCH, APRIL, 1932

| Class | District of Columbia | | | Entire service | | |
|---|----------------------|-------------|-------------|----------------|-----------------------|-----------------------|
| | April, 1931 | March, 1932 | April, 1932 | April, 1931 | March, 1932 | April, 1932 |
| Permanent employees..... | 63, 875 | 66, 163 | 66, 262 | 568, 947 | ¹ 545, 591 | ¹ 544, 986 |
| Temporary employees (not including those in the field service of the Post Office Department)..... | 8, 353 | 2, 906 | 3, 192 | 44, 900 | 28, 097 | 30, 352 |
| Total..... | 72, 228 | 69, 069 | 69, 454 | 613, 847 | ¹ 573, 688 | ¹ 575, 338 |

| Gain or loss | District of Columbia | | Entire service | |
|---------------------------------|----------------------|------------------|--------------------|--------------------|
| | Number | Per cent | Number | Per cent |
| April, 1931 to April, 1932..... | -2, 774 | -3.84 | +2, 709 | +0.44 |
| March, 1932 to April, 1932..... | - ² 28 | (³) | + ⁴ 519 | + ⁴ .09 |

| Labor turnover | District of Columbia | Entire service |
|-----------------------------------|----------------------|----------------------|
| Additions in April, 1932..... | ² 677 | ⁴ 14, 490 |
| Separations in April, 1932..... | 705 | 13, 971 |
| Monthly turnover April, 1932..... | 0.98 | 2.43 |

¹ 35,800 star-route and other contractors, clerks in charge of mail contract stations, clerks in third-class post offices, and special-delivery messengers, who were previously included in these totals have been deducted.

² Does not include 413 employees of the Reconstruction Finance Corporation reported for the first time. (These employees are included in the totals for the District of Columbia.)

³ Less than one-tenth of 1 per cent.

⁴ Does not include 1,131 employees of the Reconstruction Finance Corporation reported for the first time. (These employees are included in the total for the entire service.)

Employment in Building Construction in April, 1932

EMPLOYMENT in building construction increased 10.7 per cent in April as compared with March, and earnings increased 15.9 per cent during the same period. This information is based on reports received from 7,344 firms engaged on building operations in 50 cities covered by the Federal bureau and 2,531 additional firms in various localities in Pennsylvania, California, Massachusetts, New York State, Wisconsin, and the city of Baltimore, Md. Information regarding employment in the building industry in New York State is presented for the first time in these reports. This is possible through the cooperation of the bureau of statistics and information of the New York State Department of Labor. All information other than for the 50 cities covered by the Federal bureau in the first section of the table is supplied by cooperating State labor departments which collect this information within their respective jurisdictions.

COMPARISON OF EMPLOYMENT AND EARNINGS IN THE BUILDING CONSTRUCTION INDUSTRY IN IDENTICAL FIRMS, MARCH AND APRIL, 1932

| Locality | Number of firms reporting | Number on pay roll week ending near— | | Per cent of change | Amount of pay roll week ending near— | | Per cent of change |
|--------------------------------|---------------------------|--------------------------------------|---------|--------------------|--------------------------------------|---------|--------------------|
| | | Mar. 15 | Apr. 15 | | Mar. 15 | Apr. 15 | |
| Akron..... | 71 | 338 | 321 | -5.0 | \$6,808 | \$6,382 | -6.3 |
| Atlanta..... | 123 | 1,222 | 1,149 | -6.0 | 18,716 | 18,361 | -1.9 |
| Birmingham..... | 79 | 435 | 414 | -4.8 | 6,544 | 5,818 | -11.1 |
| Bridgeport..... | 136 | 570 | 597 | +4.7 | 15,057 | 15,893 | +5.6 |
| Charlotte..... | 37 | 208 | 217 | +4.3 | 3,372 | 3,374 | +0.1 |
| Cincinnati ¹ | 511 | 2,802 | 3,400 | +21.3 | 72,651 | 96,821 | +33.3 |
| Cleveland..... | 418 | 1,894 | 2,414 | +27.5 | 49,826 | 63,224 | +26.9 |
| Dallas..... | 130 | 666 | 818 | +22.8 | 12,414 | 14,951 | +20.4 |
| Dayton..... | 110 | 470 | 534 | +13.6 | 10,539 | 11,744 | +11.4 |
| Denver..... | 211 | 860 | 898 | +4.4 | 22,408 | 23,912 | +6.7 |
| Des Moines..... | 101 | 499 | 508 | +1.8 | 11,353 | 12,099 | +6.6 |
| Detroit..... | 429 | 2,962 | 2,904 | -2.0 | 76,952 | 74,540 | -3.1 |
| Duluth..... | 53 | 208 | 273 | +31.3 | 3,881 | 5,305 | +36.7 |
| Flint..... | 31 | 138 | 139 | +0.7 | 3,334 | 2,468 | -26.0 |
| Fort Wayne..... | 105 | 531 | 651 | +22.6 | 10,269 | 13,510 | +31.6 |
| Grand Rapids..... | 98 | 307 | 333 | +8.5 | 6,235 | 6,807 | +9.2 |
| Hartford..... | 257 | 1,044 | 1,501 | +43.8 | 28,504 | 39,481 | +38.5 |
| Houston..... | 113 | 742 | 686 | -7.5 | 12,040 | 12,464 | +3.5 |
| Indianapolis..... | 147 | 833 | 837 | +0.5 | 20,270 | 20,618 | +1.7 |
| Jacksonville..... | 56 | 241 | 228 | -5.4 | 3,744 | 3,408 | -9.0 |
| Kansas City ² | 229 | 1,477 | 1,673 | +13.3 | 43,043 | 49,846 | +15.8 |
| Knoxville..... | 31 | 364 | 493 | +35.4 | 4,984 | 7,087 | +42.2 |
| Louisville..... | 133 | 1,042 | 1,088 | +4.4 | 19,820 | 23,104 | +16.6 |
| Memphis..... | 93 | 672 | 737 | +9.7 | 12,079 | 15,405 | +27.5 |
| Miami..... | 83 | 624 | 560 | -10.3 | 14,873 | 12,291 | -17.4 |
| Minneapolis..... | 243 | 1,466 | 1,675 | +14.3 | 36,130 | 42,978 | +19.0 |
| Nashville..... | 77 | 1,035 | 1,059 | +2.3 | 17,381 | 19,654 | +13.1 |
| New Haven..... | 208 | 1,943 | 2,146 | +10.4 | 66,873 | 67,786 | +1.4 |
| New Orleans..... | 126 | 1,174 | 1,311 | +11.7 | 20,801 | 22,972 | +10.4 |
| Norfolk-Portsmouth..... | 87 | 454 | 516 | +13.0 | 9,007 | 10,293 | +14.3 |
| Oklahoma City..... | 100 | 557 | 647 | +16.2 | 11,364 | 12,121 | +6.7 |
| Omaha..... | 137 | 688 | 887 | +28.9 | 14,651 | 22,240 | +51.8 |
| Portland, Me..... | 85 | 400 | 444 | +8.6 | 10,822 | 10,951 | +1.2 |
| Portland, Ore..... | 193 | 1,146 | 1,072 | -6.5 | 27,149 | 24,158 | -11.0 |
| Providence..... | 221 | 1,346 | 1,761 | +30.8 | 32,700 | 43,657 | +33.5 |
| Richmond..... | 151 | 1,219 | 1,176 | -3.5 | 24,196 | 25,624 | +5.9 |
| St. Louis..... | 436 | 1,991 | 2,068 | +3.9 | 58,599 | 63,147 | +7.8 |
| St. Paul..... | 138 | 937 | 1,110 | +18.5 | 21,189 | 29,667 | +40.0 |
| Salt Lake City..... | 81 | 483 | 546 | +13.0 | 10,249 | 12,294 | +20.0 |
| San Antonio..... | 68 | 527 | 609 | +15.6 | 7,877 | 9,210 | +16.9 |

¹ Includes Covington and Newport, Ky.

² Includes both Kansas City, Kans., and Kansas City, Mo.

COMPARISON OF EMPLOYMENT AND EARNINGS IN THE **BUILDING CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, MARCH AND APRIL, 1932—Continued

| Locality | Number of firms reporting | Number on pay roll week ending near— | | Per cent of change | Amount of pay roll week ending near— | | Per cent of change |
|--|---------------------------|--------------------------------------|---------|--------------------|--------------------------------------|-----------|--------------------|
| | | Mar. 15 | Apr. 15 | | Mar. 15 | Apr. 15 | |
| Seattle..... | 189 | 952 | 994 | +4.4 | \$23,220 | \$22,113 | -4.8 |
| South Bend..... | 44 | 302 | 297 | -1.7 | 6,528 | 6,639 | +1.7 |
| Spokane..... | 44 | 161 | 166 | +3.1 | 3,539 | 3,705 | +4.7 |
| Tacoma..... | 64 | 211 | 130 | -38.4 | 4,925 | 2,881 | -41.5 |
| Tulsa..... | 59 | 295 | 247 | -16.3 | 5,924 | 4,826 | -18.5 |
| Washington, D. C..... | 551 | 7,391 | 8,496 | +15.0 | 188,652 | 239,413 | +26.9 |
| Wheeling..... | 52 | 213 | 227 | +6.6 | 4,329 | 4,622 | +6.8 |
| Wichita..... | 63 | 227 | 236 | +4.0 | 4,069 | 3,960 | -2.7 |
| Wilmington, Del..... | 98 | 1,102 | 1,512 | +37.2 | 24,827 | 32,065 | +29.2 |
| Youngstown..... | 44 | 229 | 140 | -38.9 | 4,749 | 3,063 | -35.5 |
| Total, 50 cities..... | 7,344 | 47,607 | 52,845 | +11.0 | 1,129,466 | 1,298,952 | +15.0 |
| Erie ¹ | 24 | 128 | 196 | +53.1 | 2,859 | 4,114 | +43.9 |
| Philadelphia ¹ | 478 | 3,525 | 3,643 | +3.3 | 85,543 | 92,226 | +7.8 |
| Pittsburgh ¹ | 240 | 1,320 | 1,748 | +32.4 | 43,674 | 54,315 | +24.4 |
| Reading ¹ | 63 | 372 | 398 | +7.0 | 7,580 | 8,414 | +11.0 |
| Scranton ¹ | 36 | 165 | 187 | +13.3 | 3,900 | 3,885 | -0.4 |
| Nine additional cities over 50,000, under 100,000 ¹ | 189 | 1,021 | 1,202 | +17.7 | 18,956 | 22,539 | +18.9 |
| Total, 14 cities..... | 1,030 | 6,531 | 7,374 | +12.9 | 162,512 | 185,493 | +14.1 |
| Los Angeles ¹ | 25 | 737 | 715 | -3.0 | 16,928 | 15,874 | -6.2 |
| San Francisco-Oakland ¹ | 38 | 901 | 979 | +8.7 | 19,518 | 25,219 | +29.2 |
| California (including all localities) ¹ | 89 | 2,213 | 2,250 | +1.7 | 50,187 | 54,543 | +8.7 |
| Baltimore, Md. ¹ | 140 | 1,138 | 1,416 | +24.4 | 23,447 | 27,996 | +19.4 |
| Massachusetts ¹ | 760 | 5,774 | 6,663 | +15.4 | 165,930 | 184,889 | +11.4 |
| New York State ¹ | 447 | 12,645 | 13,683 | +8.2 | 496,526 | 604,286 | +21.7 |
| Wisconsin ¹ | 65 | 1,297 | 1,272 | -1.9 | 31,701 | 30,974 | -2.3 |
| Grand total, all localities..... | 9,875 | 77,205 | 85,503 | +10.7 | 2,059,769 | 2,387,133 | +15.9 |

¹ Data supplied by cooperating State bureaus.**Employment on Class I Steam Railroads in the United States**

THE monthly trend of employment from January, 1923, to March, 1932, on Class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12-month average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO MARCH, 1932

[12-month average, 1926=100]

| Month | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 |
|----------------|-------|-------|-------|-------|-------|------|------|------|------|-------|
| January..... | 98.3 | 96.9 | 95.6 | 95.8 | 95.5 | 89.3 | 88.2 | 86.3 | 73.7 | 61.2 |
| February..... | 98.6 | 97.0 | 95.4 | 96.0 | 95.3 | 89.0 | 88.9 | 85.4 | 72.7 | 60.3 |
| March..... | 100.5 | 97.4 | 95.2 | 96.7 | 95.8 | 89.9 | 90.1 | 85.5 | 72.9 | 60.5 |
| April..... | 102.0 | 98.9 | 96.6 | 98.9 | 97.4 | 91.7 | 92.2 | 87.0 | 73.5 | ----- |
| May..... | 105.0 | 99.2 | 97.8 | 100.2 | 99.4 | 94.5 | 94.9 | 88.6 | 73.9 | ----- |
| June..... | 107.1 | 98.0 | 98.6 | 101.6 | 100.9 | 95.9 | 96.1 | 86.5 | 72.8 | ----- |
| July..... | 108.2 | 98.1 | 99.4 | 102.9 | 101.0 | 95.6 | 96.6 | 84.7 | 72.4 | ----- |
| August..... | 109.4 | 99.0 | 99.7 | 102.7 | 99.5 | 95.7 | 97.4 | 83.7 | 71.2 | ----- |
| September..... | 107.8 | 99.7 | 99.9 | 102.8 | 99.1 | 95.3 | 96.8 | 82.2 | 69.3 | ----- |
| October..... | 107.3 | 100.8 | 100.7 | 103.4 | 98.9 | 95.3 | 96.9 | 80.4 | 67.7 | ----- |
| November..... | 105.2 | 99.0 | 99.1 | 101.2 | 95.7 | 92.9 | 93.0 | 77.0 | 64.5 | ----- |
| December..... | 99.4 | 96.0 | 97.1 | 98.2 | 91.9 | 89.7 | 88.8 | 74.9 | 62.6 | ----- |
| Average..... | 104.1 | 98.3 | 97.9 | 100.0 | 97.5 | 92.9 | 93.3 | 83.5 | 70.6 | 100.7 |

¹ Average for 3 months.

Table 2 shows the total number of employees on the 15th day each of March, 1931, and February and March, 1932, and pay-roll totals for the entire months.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, MARCH, 1931, AND FEBRUARY AND MARCH, 1932

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

| Occupation | Number of employees at middle of month | | | Total earnings | | |
|---|--|---------------|---------------|----------------|----------------|--------------|
| | Mar. 15, 1931 | Feb. 15, 1932 | Mar. 15, 1932 | March, 1931 | February, 1932 | March, 1932 |
| Professional, clerical, and general..... | 232,325 | 198,721 | 197,049 | \$34,512,272 | \$26,360,210 | \$26,992,117 |
| Clerks..... | 127,011 | 106,284 | 105,267 | 17,791,296 | 13,178,957 | 13,649,048 |
| Stenographers and typists..... | 21,703 | 18,719 | 18,536 | 2,867,003 | 2,221,214 | 2,271,947 |
| Maintenance of way and structures.. | 269,047 | 208,905 | 210,004 | 25,492,320 | 15,810,444 | 17,237,901 |
| Laborers, extra gang and work-train..... | 24,708 | 12,313 | 13,415 | 1,754,802 | 650,963 | 780,384 |
| Laborers, track and roadway section..... | 140,287 | 113,922 | 113,413 | 9,593,712 | 5,721,358 | 6,421,656 |
| Maintenance of equipment and stores.. | 367,593 | 302,254 | 307,146 | 47,455,024 | 31,072,558 | 33,446,735 |
| Carmen..... | 76,358 | 61,312 | 62,359 | 11,016,008 | 6,946,863 | 7,558,704 |
| Machinists..... | 47,988 | 41,474 | 42,427 | 7,286,742 | 4,909,497 | 5,350,669 |
| Skilled trades helpers..... | 80,763 | 65,890 | 67,021 | 8,754,144 | 5,513,638 | 5,976,245 |
| Laborers (shops, engine houses, power plants, and stores)..... | 30,170 | 24,994 | 25,080 | 2,843,957 | 1,906,133 | 2,020,674 |
| Common laborers (shops, engine houses, power plants, and stores)..... | 39,358 | 31,644 | 32,044 | 2,985,670 | 1,850,788 | 2,043,077 |
| Transportation, other than train, engine and yard..... | 164,788 | 141,551 | 140,491 | 20,909,629 | 15,436,359 | 16,204,960 |
| Station agents..... | 27,960 | 26,338 | 26,234 | 4,452,211 | 3,631,649 | 3,826,751 |
| Telegraphers, telephoners, and towermen..... | 20,255 | 17,792 | 17,634 | 3,198,288 | 2,376,071 | 2,520,480 |
| Truckers (stations, warehouses, and platforms)..... | 24,744 | 19,489 | 19,419 | 2,288,523 | 1,451,674 | 1,567,758 |
| Crossing and bridge flagmen and gatemen..... | 19,063 | 18,222 | 18,205 | 1,480,658 | 1,261,888 | 1,264,942 |
| Transportation (yard masters, switch tenders, and hostlers)..... | 18,520 | 15,445 | 15,418 | 3,616,242 | 2,537,001 | 2,618,187 |
| Transportation, train and engine..... | 251,195 | 212,050 | 212,168 | 49,759,270 | 34,481,001 | 37,151,440 |
| Road conductors..... | 28,526 | 24,202 | 24,285 | 6,785,540 | 4,849,927 | 5,186,902 |
| Road brakemen and flagmen..... | 54,874 | 46,174 | 46,087 | 9,235,939 | 6,399,139 | 6,888,225 |
| Yard brakemen and yard helpers..... | 42,592 | 36,032 | 36,144 | 7,177,387 | 4,769,154 | 5,179,072 |
| Road engineers and motormen..... | 33,719 | 28,841 | 28,740 | 9,035,912 | 6,424,258 | 6,895,901 |
| Road firemen and helpers..... | 34,652 | 29,663 | 29,481 | 6,540,947 | 4,616,986 | 4,959,494 |
| All employees..... | 1,303,468 | 1,078,926 | 1,082,276 | 181,744,757 | 125,097,573 | 133,651,340 |

RETAIL PRICES

Retail Prices of Food in April, 1932

WITH the March, 1932, issue the Bureau of Labor Statistics began the publication of the data relating to retail prices and wholesale prices in separate pamphlets each month. Heretofore this material has been incorporated in the same publication.

It has been the custom of the Bureau of Labor Statistics to publish each month certain information in regard to the retail prices of food by cities and articles. In the interest of economy in the cost of printing some of these detailed statistics are temporarily eliminated from current publications. Information comparable to that shown in previous publications is on record in the files of the bureau and available to those desiring to make use of it.

Rates of electricity for household use and price per 1,000 cubic feet of gas, by cities, are published in June and December of each year.

Table 1 shows for 51 cities of the United States, retail prices and index numbers of food on April 15, 1931, and March 15 and April 15, 1932. These prices are simple averages of actual selling prices reported monthly by retail dealers in 51 cities. The index numbers are based on the average prices in the year 1913.

TABLE 1.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF FOOD IN THE UNITED STATES, APRIL 15 AND MARCH 15, 1932, AND APRIL 15, 1931

| Article | Unit | Average retail price on— | | | Index numbers [1913=100] | | |
|---|------------------|--------------------------|------------------|------------------|-----------------------------|------------------|------------------|
| | | Apr. 15, 1931 | Mar. 15, 1932 | Apr. 15, 1932 | Apr. 15, 1931 | Mar. 15, 1932 | Apr. 15, 1932 |
| | | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | | | |
| Sirloin steak..... | Pound..... | 40.0 | 33.0 | 33.4 | 157.5 | 129.9 | 131.5 |
| Round steak..... | do..... | 34.9 | 28.5 | 28.6 | 156.5 | 127.8 | 128.3 |
| Rib roast..... | do..... | 29.7 | 24.4 | 24.3 | 150.0 | 123.2 | 122.7 |
| Chuck roast..... | do..... | 22.3 | 17.3 | 17.4 | 139.4 | 108.1 | 108.8 |
| Plate beef..... | do..... | 15.1 | 11.6 | 11.7 | 124.8 | 95.9 | 96.7 |
| Pork chops..... | do..... | 29.7 | 21.5 | 21.5 | 141.4 | 102.4 | 102.4 |
| Bacon, sliced..... | do..... | 38.1 | 25.7 | 24.9 | 141.1 | 95.2 | 92.2 |
| Ham, sliced..... | do..... | 47.2 | 36.6 | 36.3 | 175.5 | 136.1 | 134.9 |
| Lamb, leg of..... | do..... | 31.3 | 24.9 | 25.6 | 165.6 | 131.7 | 135.4 |
| Hens..... | do..... | 32.6 | 27.3 | 26.5 | 153.1 | 128.2 | 124.4 |
| Salmon, red, canned..... | do..... | 34.0 | 28.5 | 28.1 | | | |
| Milk, fresh..... | Quart..... | 12.6 | 11.3 | 11.0 | 141.6 | 127.0 | 123.6 |
| Milk, evaporated..... | 14½-oz. can..... | 9.4 | 7.6 | 7.5 | | | |
| Butter..... | Pound..... | 35.2 | 29.5 | 26.8 | 91.9 | 77.0 | 70.0 |
| Oleomargarine (all butter substitutes)..... | do..... | 21.2 | 15.9 | 15.4 | | | |
| Cheese..... | do..... | 29.3 | 23.8 | 23.3 | 132.6 | 107.7 | 105.4 |
| Lard..... | do..... | 14.2 | 9.0 | 8.7 | 89.9 | 57.0 | 55.1 |
| Vegetable lard substitute..... | do..... | 23.4 | 21.5 | 21.4 | | | |
| Eggs, strictly fresh..... | Dozen..... | 27.4 | 21.1 | 20.0 | 79.4 | 61.2 | 58.0 |
| Bread..... | Pound..... | 7.7 | 7.0 | 6.9 | 137.5 | 125.0 | 123.2 |
| Flour..... | do..... | 3.8 | 3.2 | 3.2 | 115.2 | 97.0 | 97.0 |
| Corn meal..... | do..... | 4.8 | 3.9 | 3.9 | 163.3 | 130.0 | 130.0 |
| Rolled oats..... | do..... | 8.2 | 7.7 | 7.6 | | | |
| Corn flakes..... | 8-oz. pkg..... | 9.1 | 8.7 | 8.7 | | | |
| Wheat cereal..... | 28-oz. pkg..... | 24.5 | 22.7 | 22.6 | | | |

TABLE 1.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF FOOD IN THE UNITED STATES, APRIL 15 AND MARCH 15, 1932, AND APRIL 15, 1931—Continued

| Article | Unit | Average retail price on— | | | Index numbers [1913=100] | | |
|--------------------------|----------------|--------------------------|------------------|------------------|-----------------------------|------------------|------------------|
| | | Apr. 15, 1931 | Mar. 15, 1932 | Apr. 15, 1932 | Apr. 15, 1931 | Mar. 15, 1932 | Apr. 15, 1932 |
| | | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | | | |
| Macaroni..... | Pound..... | 17.4 | 15.6 | 15.5 | | | |
| Rice..... | do..... | 8.4 | 7.1 | 6.9 | 96.6 | 81.6 | 79.3 |
| Beans, navy..... | do..... | 8.4 | 5.3 | 5.2 | | | |
| Potatoes..... | do..... | 2.8 | 1.7 | 1.7 | 164.7 | 100.0 | 100.0 |
| Onions..... | do..... | 3.6 | 8.6 | 10.3 | | | |
| Cabbage..... | do..... | 4.1 | 5.6 | 6.4 | | | |
| Pork and beans..... | No. 2 can..... | 9.7 | 8.0 | 7.9 | | | |
| Corn, canned..... | do..... | 13.9 | 11.1 | 10.8 | | | |
| Peas, canned..... | do..... | 14.6 | 13.1 | 13.1 | | | |
| Tomatoes, canned..... | do..... | 10.5 | 9.6 | 9.5 | | | |
| Sugar..... | Pound..... | 5.7 | 5.2 | 5.1 | 103.6 | 94.5 | 92.7 |
| Tea..... | do..... | 75.2 | 73.3 | 72.3 | 138.2 | 134.7 | 132.9 |
| Coffee..... | do..... | 34.6 | 30.8 | 30.5 | 116.1 | 103.4 | 102.3 |
| Prunes..... | do..... | 12.1 | 9.9 | 9.6 | | | |
| Raisins..... | do..... | 11.2 | 11.5 | 11.5 | | | |
| Bananas..... | Dozen..... | 27.8 | 23.5 | 22.8 | | | |
| Oranges..... | do..... | 33.1 | 30.7 | 31.9 | | | |
| Weighted food index..... | | | | | 124.0 | 105.0 | 103.7 |

Table 2 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years for 1913, 1920, 1928, 1929, 1930, 1931, and by months for 1931 and 1932. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 2.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, BY YEARS FOR 1913, 1920, 1928, 1929, 1930, 1931, AND BY MONTHS, 1931 AND 1932

[Average cost in 1913=100]

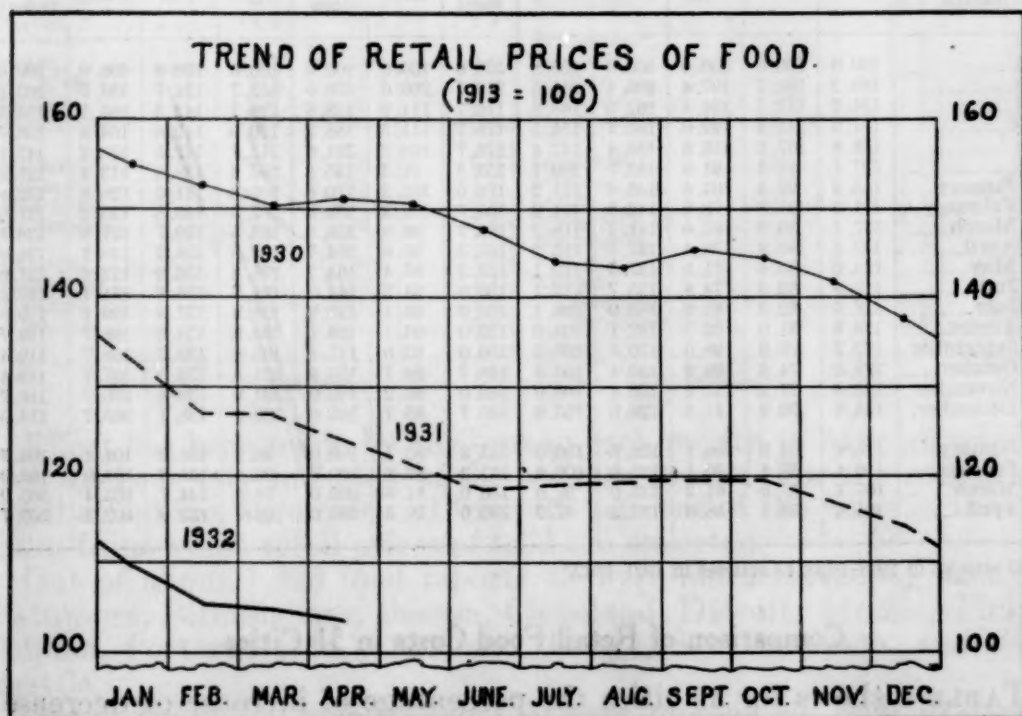
| Year and month | Cereals | Meats | Dairy products | Year and month | Cereals | Meats | Dairy products |
|-----------------------------|---------|-------|----------------|-----------------|---------|-------|----------------|
| 1913..... | 100.0 | 100.0 | 100.0 | 1931—Continued. | | | |
| 1920..... | 232.1 | 185.7 | 185.1 | July..... | 134.3 | 147.8 | 109.6 |
| 1928..... | 167.2 | 179.2 | 150.0 | August..... | 132.0 | 149.1 | 111.9 |
| 1929..... | 164.1 | 188.4 | 148.6 | September..... | 130.2 | 147.7 | 114.3 |
| 1930..... | 158.0 | 175.8 | 136.5 | October..... | 129.8 | 142.7 | 117.0 |
| 1931: Average for year..... | 135.9 | 147.0 | 114.6 | November..... | 129.1 | 135.4 | 114.4 |
| January..... | 147.1 | 159.5 | 123.6 | December..... | 127.8 | 129.3 | 111.4 |
| February..... | 144.6 | 153.4 | 120.2 | 1932: | | | |
| March..... | 142.4 | 152.5 | 120.5 | January..... | 126.4 | 123.4 | 106.5 |
| April..... | 138.9 | 151.4 | 116.5 | February..... | 125.0 | 117.3 | 102.9 |
| May..... | 137.7 | 149.3 | 110.3 | March..... | 124.3 | 118.9 | 101.9 |
| June..... | 136.3 | 145.7 | 108.3 | April..... | 122.9 | 118.6 | 97.4 |

Index Numbers of Retail Prices of Food in the United States

IN TABLE 3 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913, 1920, 1928, 1929, 1930, 1931, and by months for 1931 and 1932.¹ These index numbers, or relative prices, are based on the year 1913 as 100.0 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913.

In the last column are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Table 1, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 105.0 for March, 1932, and 103.7 for April, 1932.

The accompanying chart shows the trend in the cost of the food budget in 51 cities of the United States by months, January 15, 1930, to date.



The curve pictures more readily to the eye the changes in the cost of all articles of food than do the index numbers given in Table 3.

¹ For index numbers of each month, January, 1913, to December, 1928, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 495, pp. 32 to 45. Index numbers for 1929 are published in each Labor Review, February, 1930, to February, 1931.

TABLE 3.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920, 1928, 1929, 1930, 1931, AND BY MONTHS FOR 1931 AND 1932

[Average for year 1913=100.0]

| Year and month | Sirloin steak | Round steak | Rib roast | Chuck roast | Plate beef | Pork chops | Bacon | Ham | Lamb, leg of | Hens | Milk | Butter |
|----------------|---------------|-------------|-----------|-------------|------------|------------|-------|-------|--------------|-------|-------|--------|
| 1913..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1920..... | 172.1 | 177.1 | 167.7 | 163.8 | 151.2 | 201.4 | 193.7 | 206.3 | 207.9 | 209.9 | 187.6 | 183.0 |
| 1928..... | 188.2 | 188.3 | 176.8 | 174.4 | 157.0 | 165.7 | 163.0 | 196.7 | 208.5 | 175.6 | 159.6 | 147.5 |
| 1929..... | 196.9 | 199.1 | 185.4 | 186.9 | 172.7 | 175.7 | 161.1 | 204.1 | 212.2 | 186.4 | 160.7 | 143.9 |
| 1930..... | 182.7 | 184.8 | 172.7 | 170.0 | 155.4 | 171.0 | 156.7 | 198.5 | 185.7 | 166.7 | 157.3 | 120.4 |
| 1931..... | 155.1 | 154.3 | 146.0 | 134.4 | 118.2 | 138.6 | 134.8 | 170.6 | 156.1 | 145.5 | 138.2 | 92.4 |
| January..... | 167.3 | 168.2 | 159.1 | 152.5 | 138.0 | 141.9 | 148.9 | 188.1 | 166.1 | 153.5 | 149.4 | 98.4 |
| February..... | 161.4 | 161.0 | 154.0 | 145.6 | 131.4 | 131.4 | 145.2 | 183.3 | 164.6 | 148.8 | 146.1 | 94.8 |
| March..... | 158.7 | 157.8 | 153.0 | 141.9 | 128.1 | 140.0 | 143.0 | 178.4 | 164.0 | 150.2 | 144.9 | 97.4 |
| April..... | 157.5 | 156.5 | 150.0 | 139.4 | 124.8 | 141.4 | 141.1 | 175.5 | 165.6 | 153.1 | 141.6 | 91.9 |
| May..... | 155.5 | 154.7 | 147.0 | 135.6 | 119.8 | 143.3 | 139.3 | 172.9 | 165.1 | 148.8 | 138.2 | 81.5 |
| June..... | 152.4 | 151.1 | 142.9 | 130.6 | 112.4 | 140.0 | 136.7 | 170.6 | 161.9 | 146.0 | 134.8 | 80.7 |
| July..... | 154.3 | 154.3 | 142.9 | 130.0 | 110.7 | 151.4 | 137.0 | 171.4 | 158.7 | 144.6 | 136.0 | 82.8 |
| August..... | 155.5 | 155.2 | 143.9 | 130.0 | 109.9 | 158.6 | 135.6 | 171.4 | 156.6 | 145.1 | 136.0 | 89.8 |
| September..... | 155.1 | 154.3 | 142.9 | 130.6 | 111.6 | 153.3 | 134.1 | 169.5 | 152.4 | 145.1 | 136.0 | 96.1 |
| October..... | 152.0 | 150.7 | 141.4 | 129.4 | 111.6 | 139.5 | 127.0 | 164.3 | 145.5 | 140.4 | 134.8 | 104.2 |
| November..... | 146.9 | 144.8 | 137.9 | 126.3 | 109.9 | 119.0 | 118.9 | 155.4 | 138.1 | 137.1 | 134.8 | 97.4 |
| December..... | 142.9 | 140.4 | 134.8 | 122.5 | 108.3 | 103.8 | 112.2 | 147.6 | 131.7 | 134.3 | 130.3 | 95.3 |
| 1932: | | | | | | | | | | | | |
| January..... | 137.4 | 135.0 | 129.8 | 115.6 | 101.7 | 99.5 | 101.5 | 139.8 | 127.5 | 131.0 | 129.2 | 84.3 |
| February..... | 130.7 | 127.4 | 123.2 | 108.1 | 96.7 | 91.0 | 96.7 | 136.4 | 125.4 | 127.2 | 128.1 | 77.0 |
| March..... | 129.9 | 127.8 | 123.2 | 108.1 | 95.9 | 102.4 | 95.2 | 136.1 | 131.7 | 128.2 | 127.0 | 77.0 |
| April..... | 131.5 | 128.3 | 122.7 | 108.8 | 96.7 | 102.4 | 92.2 | 134.9 | 135.4 | 124.4 | 123.6 | 70.0 |

| Year and month | Cheese | Lard | Eggs | Bread | Flour | Corn meal | Rice | Potatoes | Sugar | Tea | Coffee | All articles ¹ |
|----------------|--------|-------|-------|-------|-------|-----------|-------|----------|-------|-------|--------|---------------------------|
| 1913..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1920..... | 188.2 | 186.7 | 197.4 | 205.4 | 245.5 | 216.7 | 200.0 | 370.6 | 352.7 | 134.7 | 157.7 | 203.4 |
| 1928..... | 174.2 | 117.7 | 134.5 | 162.5 | 163.6 | 176.7 | 114.9 | 158.8 | 129.1 | 142.3 | 165.1 | 154.3 |
| 1929..... | 171.9 | 115.8 | 142.0 | 160.7 | 154.5 | 176.7 | 111.5 | 188.2 | 120.0 | 142.6 | 164.8 | 156.7 |
| 1930..... | 158.8 | 107.6 | 118.8 | 155.4 | 142.4 | 176.7 | 109.2 | 211.8 | 112.7 | 142.5 | 136.2 | 147.1 |
| 1931..... | 127.1 | 84.2 | 91.9 | 135.7 | 109.1 | 153.3 | 94.3 | 135.3 | 103.6 | 138.6 | 113.4 | 121.3 |
| January..... | 145.2 | 99.4 | 104.6 | 146.4 | 121.2 | 170.0 | 102.3 | 170.6 | 107.3 | 141.0 | 126.8 | 132.8 |
| February..... | 141.2 | 91.8 | 78.8 | 142.9 | 121.2 | 166.7 | 102.3 | 158.8 | 107.3 | 140.6 | 125.2 | 127.0 |
| March..... | 137.1 | 89.9 | 82.6 | 141.1 | 118.2 | 166.7 | 98.9 | 158.8 | 105.5 | 139.7 | 121.8 | 126.4 |
| April..... | 132.6 | 89.9 | 79.4 | 137.5 | 115.2 | 163.3 | 96.6 | 164.7 | 103.6 | 138.2 | 116.1 | 124.0 |
| May..... | 124.0 | 85.4 | 71.9 | 137.5 | 112.1 | 153.3 | 95.4 | 164.7 | 101.8 | 136.9 | 112.4 | 121.0 |
| June..... | 119.9 | 82.3 | 74.8 | 135.7 | 112.1 | 150.0 | 94.3 | 141.2 | 101.8 | 136.8 | 111.1 | 118.3 |
| July..... | 118.6 | 82.3 | 82.9 | 133.9 | 109.1 | 150.0 | 93.1 | 135.3 | 101.8 | 137.3 | 109.1 | 119.0 |
| August..... | 119.9 | 81.0 | 92.5 | 132.1 | 103.0 | 150.0 | 93.1 | 129.4 | 103.6 | 138.6 | 108.7 | 119.7 |
| September..... | 122.2 | 79.8 | 98.0 | 130.4 | 100.0 | 150.0 | 92.0 | 117.6 | 103.6 | 139.3 | 108.7 | 119.4 |
| October..... | 122.6 | 74.5 | 109.9 | 130.4 | 100.0 | 146.7 | 89.7 | 105.9 | 101.8 | 139.0 | 107.7 | 119.1 |
| November..... | 121.3 | 77.2 | 115.1 | 130.4 | 100.0 | 140.0 | 86.2 | 100.0 | 101.8 | 138.1 | 106.7 | 116.7 |
| December..... | 118.6 | 70.9 | 111.6 | 128.6 | 100.0 | 136.7 | 85.1 | 105.9 | 100.0 | 138.1 | 105.7 | 114.3 |
| 1932: | | | | | | | | | | | | |
| January..... | 115.4 | 63.9 | 86.1 | 126.8 | 100.0 | 133.3 | 85.1 | 100.0 | 98.2 | 136.2 | 104.4 | 109.3 |
| February..... | 110.4 | 59.5 | 70.1 | 125.0 | 100.0 | 133.3 | 82.8 | 100.0 | 96.4 | 135.3 | 104.0 | 105.3 |
| March..... | 107.7 | 57.0 | 61.2 | 125.0 | 97.0 | 130.0 | 81.6 | 100.0 | 94.5 | 134.7 | 103.4 | 105.0 |
| April..... | 105.4 | 55.1 | 58.0 | 123.2 | 97.0 | 130.0 | 79.3 | 100.0 | 92.7 | 132.9 | 102.3 | 103.7 |

¹ 22 articles in 1913-1920; 42 articles in 1921-1932.

Comparison of Retail Food Costs in 51 Cities

TABLE 4 shows for 39 cities the percentage of increase or decrease in the retail cost of food in the United States in April, 1932, compared with the average cost in the year 1913, in April, 1931, and March, 1932. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average consumption of these articles in each city. The consumption figures which have been used since January, 1921, are given in the Labor Review for March, 1921 (p. 26). Those used

for prior dates are given in the Labor Review for November, 1918 (pp. 94 and 95).

TABLE 4.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD, IN APRIL, 1932, COMPARED WITH THE COST IN MARCH, 1932, APRIL, 1932, AND WITH THE COST IN THE YEAR 1913, BY CITIES

| City | Percent- age in- crease April, 1932, com- pared with 1913 | Percentage decrease April, 1932, com- pared with— | | City | Percent- age in- crease April, 1932, com- pared with 1913 | Percentage decrease April, 1932, com- pared with— | |
|-----------------------|---|---|------------------|-----------------------|---|---|------------------|
| | | April, 1931 | March, 1932 | | | April, 1931 | March, 1932 |
| United States..... | 3.7 | 16.4 | 1.3 | Minneapolis..... | 2.5 | 17.2 | 2.5 |
| Atlanta..... | 1.4 | 19.3 | 0.9 | Mobile..... | | 17.8 | 0.4 |
| Baltimore..... | 6.4 | 17.8 | 0.7 | Newark..... | 7.5 | 13.9 | ² 0.7 |
| Birmingham..... | 4.4 | 14.6 | ² 1.4 | New Haven..... | 12.2 | 12.8 | 1.4 |
| Boston..... | 3.3 | 17.3 | 1.0 | New Orleans..... | 3.9 | 13.8 | 1.4 |
| Bridgeport..... | | 13.7 | 2.8 | New York..... | 11.2 | 13.7 | 0.2 |
| Buffalo..... | 10.8 | 12.1 | ² 3.1 | Norfolk..... | | 16.2 | 1.1 |
| Butte..... | | 15.0 | 2.0 | Omaha..... | ¹ 1.7 | 16.2 | 2.0 |
| Charleston, S. C..... | 8.5 | 16.2 | 1.1 | Peoria..... | | 17.6 | 1.3 |
| Chicago..... | 13.4 | 15.7 | 2.1 | Philadelphia..... | 7.0 | 17.4 | 1.4 |
| Cincinnati..... | 0.4 | 23.5 | 4.2 | Pittsburgh..... | 2.0 | 18.5 | 1.0 |
| Cleveland..... | ¹ 2.4 | 17.7 | 0.6 | Portland, Me..... | | 12.1 | 0.0 |
| Columbus..... | | 19.0 | 2.1 | Portland, Oreg..... | ¹ 2.9 | 11.5 | 0.3 |
| Dallas..... | 0.7 | 16.0 | ² 0.6 | Providence..... | 5.4 | 14.3 | 0.4 |
| Denver..... | ¹ 4.6 | 14.5 | 2.1 | Richmond..... | 6.2 | 16.6 | 0.9 |
| Detroit..... | ¹ 3.9 | 23.6 | 3.0 | Rochester..... | | 15.8 | 1.1 |
| Fall River..... | 2.8 | 15.3 | 1.3 | St. Louis..... | 4.8 | 17.9 | 1.9 |
| Houston..... | | 18.2 | 3.3 | St. Paul..... | | 16.4 | 1.8 |
| Indianapolis..... | ¹ 0.9 | 16.5 | 0.1 | Salt Lake City..... | ¹ 10.7 | 16.2 | 1.7 |
| Jacksonville..... | ¹ 5.5 | 18.1 | 0.4 | San Francisco..... | 9.0 | 11.9 | 0.9 |
| Kansas City..... | 1.3 | 19.6 | 1.2 | Savannah..... | | 19.0 | 0.1 |
| Little Rock..... | ¹ 7.8 | 21.5 | 0.8 | Scranton..... | 11.0 | 14.7 | ² 0.4 |
| Los Angeles..... | ¹ 7.4 | 16.7 | 3.6 | Seattle..... | 4.3 | 12.3 | 0.2 |
| Louisville..... | ¹ 3.0 | 16.1 | 1.7 | Springfield, Ill..... | | 16.1 | 0.7 |
| Manchester..... | 2.8 | 15.9 | 1.1 | Washington..... | 9.8 | 18.2 | 0.6 |
| Memphis..... | ¹ 3.0 | 15.7 | 1.5 | Hawaii: | | | |
| Milwaukee..... | 5.3 | 13.3 | 0.8 | Honolulu..... | | 6.8 | 1.1 |
| | | | | Other localities..... | | 7.9 | 0.0 |

¹ Decrease.

² Increase.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of April schedules were received from 99 per cent of the firms in the 51 cities from which retail prices of food are collected.

Out of about 1,236 food reports 13 were not received—1 each in Baltimore, Birmingham, Boston, Cleveland, Detroit, Mobile, Philadelphia, Portland (Me.), Portland (Oreg.), San Francisco, and 3 in Seattle.

Out of about 350 bread reports 3 were missing—1 each in Jacksonville, Los Angeles, and Portland (Oreg.).

A perfect record is shown for the following-named cities: Atlanta, Bridgeport, Buffalo, Butte, Charleston (S. C.), Chicago, Cincinnati, Columbus, Dallas, Denver, Fall River, Houston, Indianapolis, Kansas City, Little Rock, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Newark, New Haven, New Orleans, New York, Norfolk, Omaha, Peoria, Pittsburgh, Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, Savannah, Scranton, Springfield (Ill.), and Washington.

Retail Prices of Coal in April, 1932¹

RETAIL prices of coal are secured in each of the 51 cities in which retail food prices are obtained. The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or bins where an extra handling is necessary.

Average prices for the United States for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite are computed from the quotations received from retail dealers in all cities where these coals are sold for household use.

The table shows the average prices of coal per ton of 2,000 pounds and index numbers for the United States on April 15, 1932, in comparison with the average prices on April 15, 1931, and March 15, 1932, together with the percentage change in the year and in the month.

TABLE 1.—AVERAGE RETAIL PRICE PER 2,000 POUNDS OF COAL FOR THE UNITED STATES AND PER CENT OF CHANGE ON APRIL 15, 1932, COMPARED WITH APRIL 15, 1931, AND MARCH 15, 1932

| Article | Average retail price on— | | | Per cent of decrease Apr. 15, 1932, compared with— | |
|-------------------------------------|--------------------------|------------------|------------------|--|------------------|
| | Apr. 15, 1931 | Mar. 15, 1932 | Apr. 15, 1932 | Apr. 15, 1931 | Mar. 15, 1932 |
| Pennsylvania anthracite: | | | | | |
| Stove— | | | | | |
| Average price per 2,000 pounds..... | \$14.45 | \$14.54 | \$13.62 | 5.7 | 6.3 |
| Index (1913=100.0)..... | 187.0 | 188.2 | 176.2 | | |
| Chestnut— | | | | | |
| Average price per 2,000 pounds..... | \$14.39 | \$14.45 | \$13.46 | 6.5 | 6.9 |
| Index (1913=100.0)..... | 181.8 | 182.6 | 170.0 | | |
| Bituminous: | | | | | |
| Average price per 2,000 pounds..... | \$8.46 | \$8.01 | \$7.85 | 7.2 | 2.0 |
| Index (1913=100.0)..... | 155.8 | 147.3 | 144.5 | | |

Table 2 shows average retail prices of coal by cities. In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

¹ Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON APRIL 15, 1931, AND MARCH 15 AND APRIL 15, 1932

| City, and kind of coal | 1931 | 1932 | | City, and kind of coal | 1931 | 1932 | |
|-----------------------------|---------|---------|---------|-----------------------------|---------|---------|---------|
| | Apr. 15 | Mar. 15 | Apr. 15 | | Apr. 15 | Mar. 15 | Apr. 15 |
| Atlanta, Ga.: | | | | Houston, Tex.: | | | |
| Bituminous, prepared sizes. | \$6.66 | \$6.54 | \$5.73 | Bituminous, prepared sizes. | \$11.40 | \$10.60 | \$10.20 |
| Baltimore, Md.: | | | | Indianapolis, Ind.: | | | |
| Pennsylvania anthracite— | | | | Bituminous— | | | |
| Stove | 14.00 | 14.00 | 11.50 | Prepared sizes— | | | |
| Chestnut | 13.50 | 13.75 | 11.25 | High volatile | 5.93 | 5.00 | 5.54 |
| Bituminous, run of mine— | | | | Low volatile | 9.17 | 7.96 | 7.96 |
| High volatile | 7.82 | 7.18 | 6.93 | Run of mine— | | | |
| Birmingham, Ala.: | | | | Low volatile | 7.00 | 6.55 | 6.55 |
| Bituminous, prepared sizes. | 6.54 | 6.26 | 5.33 | Jacksonville, Fla.: | | | |
| Boston, Mass.: | | | | Bituminous, prepared sizes. | 10.00 | 10.00 | 10.00 |
| Pennsylvania anthracite— | | | | Kansas City, Mo.: | | | |
| Stove | 14.75 | 15.00 | 13.35 | Arkansas anthracite— | | | |
| Chestnut | 14.75 | 15.00 | 13.10 | Furnace | 12.44 | 11.38 | 11.38 |
| Bridgeport, Conn.: | | | | Stove No. 4 | 13.50 | 12.67 | 12.67 |
| Pennsylvania anthracite— | | | | Bituminous, prepared sizes. | 6.71 | 6.06 | 6.12 |
| Stove | 14.00 | 13.25 | 13.00 | Little Rock, Ark.: | | | |
| Chestnut | 14.00 | 13.25 | 13.00 | Arkansas anthracite—Egg | 13.00 | 12.25 | 12.25 |
| Buffalo, N. Y.: | | | | Bituminous, prepared sizes. | 9.90 | 9.17 | 8.72 |
| Pennsylvania anthracite— | | | | Los Angeles, Calif.: | | | |
| Stove | 12.40 | 12.25 | 11.75 | Bituminous, prepared sizes. | 16.50 | 16.25 | 16.25 |
| Chestnut | 12.40 | 12.00 | 11.50 | Louisville, Ky.: | | | |
| Butte, Mont.: | | | | Bituminous— | | | |
| Bituminous, prepared sizes. | 10.49 | 9.74 | 9.73 | Prepared sizes— | | | |
| Charleston, S. C.: | | | | High volatile | 4.93 | 5.18 | 4.73 |
| Bituminous, prepared sizes. | 9.67 | 9.50 | 9.50 | Low volatile | 7.50 | 7.50 | 6.75 |
| Chicago, Ill.: | | | | Manchester, N. H.: | | | |
| Pennsylvania anthracite— | | | | Pennsylvania anthracite— | | | |
| Stove | 16.40 | 16.75 | 16.75 | Stove | 15.50 | 15.50 | 14.50 |
| Chestnut | 16.30 | 16.75 | 16.75 | Chestnut | 15.50 | 15.50 | 14.50 |
| Bituminous— | | | | Memphis, Tenn.: | | | |
| Prepared sizes— | | | | Bituminous, prepared sizes. | 7.66 | 6.72 | 6.82 |
| High volatile | 7.93 | 7.83 | 7.86 | Milwaukee, Wis.: | | | |
| Low volatile | 11.46 | 10.41 | 10.41 | Pennsylvania anthracite— | | | |
| Run of mine— | | | | Stove | 15.75 | 15.05 | 15.05 |
| Low volatile | 7.75 | 7.23 | 7.23 | Chestnut | 15.50 | 14.80 | 14.80 |
| Cincinnati, Ohio: | | | | Bituminous— | | | |
| Bituminous— | | | | Prepared sizes— | | | |
| Prepared sizes— | | | | High volatile | 7.70 | 7.48 | 7.45 |
| High volatile | 5.05 | 5.75 | 4.75 | Low volatile | 10.60 | 10.01 | 10.01 |
| Low volatile | 7.03 | 8.00 | 6.50 | Minneapolis, Minn.: | | | |
| Cleveland, Ohio: | | | | Pennsylvania anthracite— | | | |
| Pennsylvania anthracite— | | | | Stove | 16.90 | 18.05 | 16.60 |
| Stove | 14.56 | 14.38 | 14.44 | Chestnut | 16.90 | 18.05 | 16.35 |
| Chestnut | 14.44 | 14.31 | 14.31 | Bituminous— | | | |
| Bituminous— | | | | Prepared sizes— | | | |
| Prepared sizes— | | | | High volatile | 9.61 | 9.32 | 9.34 |
| High volatile | 6.67 | 6.56 | 6.56 | Low volatile | 12.63 | 12.04 | 12.04 |
| Low volatile | 9.25 | 9.14 | 9.21 | Mobile, Ala.: | | | |
| Columbus, Ohio: | | | | Bituminous, prepared sizes. | 8.38 | 8.75 | 8.13 |
| Bituminous— | | | | Newark, N. J.: | | | |
| Prepared sizes— | | | | Pennsylvania anthracite— | | | |
| High volatile | 5.43 | 5.25 | 5.25 | Stove | 12.70 | 12.50 | 11.75 |
| Low volatile | 7.17 | 6.75 | 6.67 | Chestnut | 12.70 | 12.25 | 11.50 |
| Dallas, Tex.: | | | | New Haven, Conn.: | | | |
| Arkansas anthracite—Egg | 15.00 | 14.00 | 14.00 | Pennsylvania anthracite— | | | |
| Bituminous, prepared sizes. | 12.58 | 10.25 | 10.00 | Stove | 14.90 | 14.90 | 13.75 |
| Denver, Colo.: | | | | Chestnut | 14.90 | 14.90 | 13.75 |
| Colorado anthracite— | | | | New Orleans, La.: | | | |
| Furnace, 1 and 2 mixed | 15.25 | 15.00 | 14.88 | Bituminous, prepared sizes. | 8.07 | 9.93 | 9.93 |
| Stove, 3 and 5 mixed | 15.25 | 15.00 | 14.88 | New York, N. Y.: | | | |
| Bituminous, prepared sizes. | 9.57 | 8.00 | 7.87 | Pennsylvania anthracite— | | | |
| Detroit, Mich.: | | | | Stove | 12.92 | 13.38 | 11.67 |
| Pennsylvania anthracite— | | | | Chestnut | 12.92 | 13.38 | 11.42 |
| Stove | 14.50 | 14.17 | 13.67 | Norfolk, Va.: | | | |
| Chestnut | 14.50 | 14.17 | 13.58 | Pennsylvania anthracite— | | | |
| Bituminous— | | | | Stove | 15.00 | 14.50 | 14.50 |
| Prepared sizes— | | | | Chestnut | 15.00 | 14.50 | 14.50 |
| High volatile | 6.94 | 6.13 | 6.04 | Bituminous— | | | |
| Low volatile | 8.16 | 6.63 | 6.61 | Prepared sizes— | | | |
| Run of mine— | | | | High volatile | 7.38 | 6.94 | 7.00 |
| Low volatile | 7.13 | 6.13 | 6.25 | Low volatile | 9.00 | 9.00 | 9.00 |
| Fall River, Mass.: | | | | Run of mine— | | | |
| Pennsylvania anthracite— | | | | Low volatile | 7.00 | 7.00 | 7.00 |
| Stove | 15.00 | 16.00 | 14.00 | Omaha, Nebr.: | | | |
| Chestnut | 15.00 | 16.00 | 13.75 | Bituminous, prepared sizes. | 9.45 | 8.74 | 8.74 |

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON APRIL 15, 1931, AND MARCH 15 AND APRIL 15, 1932—Continued

| City, and kind of coal | 1931 | 1932 | | City, and kind of coal | 1931 | 1932 | |
|--|---------|---------|---------|---|---------|---------|---------|
| | Apr. 15 | Mar. 15 | Apr. 15 | | Apr. 15 | Mar. 15 | Apr. 15 |
| Peoria, Ill.: Bituminous, prepared sizes | \$6.33 | \$6.12 | \$6.10 | St. Paul, Minn.: Pennsylvania anthracite— | | | |
| Philadelphia, Pa.: Pennsylvania anthracite— | | | | Stove | \$16.90 | \$18.15 | \$16.60 |
| Stove | 12.25 | 11.75 | 11.00 | Chestnut | 16.90 | 18.15 | 16.35 |
| Chestnut | 12.25 | 11.54 | 10.75 | Bituminous— | | | |
| Pittsburgh, Pa.: Pennsylvania anthracite— | | | | Prepared sizes— | | | |
| Chestnut | 14.50 | 14.00 | 13.75 | High volatile | 9.70 | 9.32 | 9.36 |
| Bituminous, prepared sizes | 4.73 | 4.47 | 4.46 | Low volatile | 12.80 | 12.06 | 12.06 |
| Portland, Me.: Pennsylvania anthracite— | | | | Salt Lake City, Utah: Bituminous, prepared sizes | 7.58 | 7.58 | 7.54 |
| Stove | 15.84 | 16.80 | 14.88 | San Francisco, Calif.: New Mexico anthracite— | | | |
| Chestnut | 16.80 | 16.80 | 14.64 | Cerillos egg | 26.00 | 26.00 | 26.00 |
| Portland, Oreg.: Bituminous, prepared sizes | 13.21 | 12.09 | 11.98 | Colorado anthracite— | | | |
| Providence, R. I.: Pennsylvania anthracite— | | | | Egg | 25.50 | 25.50 | 25.50 |
| Stove | 14.75 | 15.75 | 14.00 | Bituminous, prepared sizes | 17.00 | 17.00 | 17.00 |
| Chestnut | 14.75 | 15.75 | 13.75 | Savannah, Ga.: Bituminous, prepared sizes | 9.62 | 8.45 | 8.53 |
| Richmond, Va.: Pennsylvania anthracite— | | | | Scranton, Pa.: Pennsylvania anthracite— | | | |
| Stove | 15.00 | 14.38 | 14.00 | Stove | 9.30 | 9.05 | 8.55 |
| Chestnut | 15.00 | 14.38 | 14.00 | Chestnut | 9.28 | 8.78 | 8.28 |
| Bituminous— | | | | Seattle, Wash.: Bituminous, prepared sizes | 10.88 | 10.24 | 10.24 |
| Prepared sizes— | | | | Springfield, Ill.: Bituminous, prepared sizes | 4.34 | 4.34 | 4.34 |
| High volatile | 8.75 | 7.42 | 7.25 | Washington, D. C.: Pennsylvania anthracite— | | | |
| Low volatile | 9.83 | 8.57 | 8.05 | Stove | 12.76 | 14.36 | 13.36 |
| Run of mine | | | | Chestnut | 12.76 | 14.06 | 13.06 |
| Low volatile | 7.50 | 7.11 | 6.75 | Bituminous— | | | |
| Rochester, N. Y.: Pennsylvania anthracite— | | | | Prepared sizes— | | | |
| Stove | 13.38 | 13.38 | 12.50 | High volatile | 7.39 | 8.46 | 8.29 |
| Chestnut | 13.38 | 13.38 | 12.25 | Low volatile | 9.32 | 10.21 | 9.86 |
| St. Louis, Mo.: Pennsylvania anthracite— | | | | Run of mine | | | |
| Stove | 16.20 | 16.60 | 16.47 | Mixed | 6.98 | 7.50 | 7.50 |
| Chestnut | 15.95 | 16.60 | 16.47 | | | | |
| Bituminous, prepared sizes | 5.86 | 5.76 | 5.61 | | | | |

¹ The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bin.

² All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.]

³ Per ton of 2,240 pounds.

Retail Prices of Food in the United States and in Foreign Countries

THE index numbers of retail prices of food published by certain foreign countries have been brought together with those of the Bureau of Labor Statistics of the United States Department of Labor in the subjoined table, the base years in all cases being as given in the original reports. As stated in the table, the number of articles included in the index numbers for the different countries differs widely. These results, which are designed merely to show price trends and not actual differences in prices in the several countries, should not, therefore, be considered as closely comparable with one another. In certain instances, also, the figures are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities and the localities included on successive dates. Indexes are shown for July of each year from 1926 to 1930, inclusive, and by months since January, 1931.

INDEX NUMBERS OF RETAIL FOOD PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

| Country..... | United States | Canada | Belgium | Czecho-slovakia | Denmark | Finland | France | France | Germany |
|---------------------------|---------------|----------|---------|-----------------|------------|--------------------|------------------|--------------------|--------------------------|
| Number of localities..... | 51 | 60 | 59 | Prague | 100 | 21 | Except Paris | Paris | 72 |
| Commodities included..... | 42 foods | 29 foods | Foods | Foods | 53 foods | 36 foods | 13 (11 foods) | Foods | Foods |
| Base=100..... | 1913 | 1913 | 1921 | July, 1914 | July, 1914 | January-June, 1914 | August, 1914 | January-June, 1914 | October, 1913-July, 1914 |
| 1926 | | | | | | | | | |
| July..... | 157.0 | 151 | 184.9 | 117.8 | 159 | 1,105 | ¹ 610 | 507 | 145.3 |
| 1927 | | | | | | | | | |
| July..... | 153.4 | 149 | 209.6 | 126.2 | 153 | 1,102 | ¹ 553 | 559 | 156.8 |
| 1928 | | | | | | | | | |
| July..... | 152.8 | 147 | 203.8 | 125.5 | 153 | 1,155 | ¹ 536 | 544 | 154.1 |
| 1929 | | | | | | | | | |
| July..... | 158.5 | 150 | 212.3 | 123.1 | 149 | 1,116 | ² 118 | 590 | 155.7 |
| 1930 | | | | | | | | | |
| July..... | 144.0 | 149 | 205.5 | 116.7 | 137 | 969 | ² 127 | ----- | 145.9 |
| 1931 | | | | | | | | | |
| January..... | 132.8 | 134 | 195.1 | 105.1 | 126 | 893 | ----- | ----- | 133.5 |
| February..... | 127.0 | 129 | 186.8 | 103.8 | ----- | 883 | ³ 131 | ----- | 131.0 |
| March..... | 126.4 | 124 | 183.1 | 102.2 | ----- | 879 | ----- | 641 | 129.6 |
| April..... | 124.0 | 121 | 180.1 | 104.5 | 123 | 870 | ----- | ----- | 129.2 |
| May..... | 121.0 | 116 | 176.6 | 106.3 | ----- | 849 | ³ 128 | ----- | 129.9 |
| June..... | 118.3 | 111 | 176.5 | 109.2 | ----- | 842 | ----- | 642 | 130.9 |
| July..... | 119.0 | 110 | 174.8 | 108.2 | 119 | 846 | ----- | ----- | 130.4 |
| August..... | 119.7 | 112 | 171.5 | 102.8 | ----- | 870 | ³ 124 | ----- | 126.1 |
| September..... | 119.4 | 109 | 172.9 | 104.8 | ----- | 844 | ----- | 607 | 124.9 |
| October..... | 119.1 | 107 | 170.2 | 103.4 | 119 | 848 | ----- | ----- | 123.4 |
| November..... | 116.7 | 107 | 167.9 | 100.6 | ----- | 885 | ³ 115 | ----- | 121.8 |
| December..... | 114.3 | 107 | 160.7 | 99.6 | ----- | 919 | ----- | ----- | 119.9 |
| 1932 | | | | | | | | | |
| January..... | 109.3 | 105 | 156.5 | 98.3 | 117 | 916 | ----- | ----- | 116.1 |
| February..... | 105.3 | 100 | 151.3 | 94.6 | ----- | 908 | ³ 112 | ----- | 113.9 |
| March..... | 105.0 | 99 | 148.2 | 98.6 | ----- | 911 | ----- | ----- | 114.4 |

¹ For succeeding month.² In gold; for succeeding month.³ In gold.

INDEX NUMBERS OF RETAIL FOOD PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

| Country | Italy | Nether-lands | Norway | Sweden | Swit-zer-land | United Kingdom | South Africa | India | New Zealand | Aus-tralia |
|----------------------|-----------------------|-------------------|------------|------------|---------------|----------------|--------------|------------|--------------------|------------------------|
| Number of localities | 47 | The Hague | 31 | 49 | 34 | 630 | 9 | Bom-bay | 25 | 30 |
| Commodities included | 20 foods and charcoal | Foods | Foods | Foods | Foods | 21 foods | 24 foods | 17 foods | 50 foods | 46 foods and groceries |
| Base=100 | 1913 | 1921 | July, 1914 | July, 1914 | June, 1914 | July, 1914 | 1914 | July, 1914 | 1926-1930 (1,000) | 1923-1927 (1,000) |
| 1926 | | | | | | | | | | |
| July..... | 645.2 | ⁴ 73.5 | 198 | 156 | 159 | 161 | 117 | 155 | ⁵ 1,026 | |
| 1927 | | | | | | | | | | |
| July..... | 540.2 | ⁴ 76.5 | 175 | 148 | 157 | 159 | 119 | 154 | ⁵ 983 | |
| 1928 | | | | | | | | | | |
| July..... | 516.1 | ⁴ 76.2 | 173 | 156 | 157 | 157 | 116 | 143 | ⁵ 1,004 | |
| 1929 | | | | | | | | | | |
| July..... | 557.8 | ⁴ 74.5 | 158 | 148 | 155 | 149 | 116 | 145 | ⁵ 1,013 | 1,041 |
| 1930 | | | | | | | | | | |
| July..... | 506.6 | ⁴ 71.6 | 151 | 138 | 152 | 141 | 109 | 136 | 981 | 958 |
| 1931 | | | | | | | | | | |
| January..... | 462.9 | | 146 | 132 | 148 | 138 | 108 | 111 | 910 | 876 |
| February..... | 450.0 | | 144 | | 146 | 136 | 107 | 106 | 879 | 864 |
| March..... | 446.1 | 66.8 | 143 | | 144 | 134 | 107 | 103 | 856 | 854 |
| April..... | 446.1 | | 141 | 130 | 142 | 129 | 107 | 104 | 851 | 851 |
| May..... | 448.6 | | 139 | | 141 | 129 | 108 | 102 | 847 | 840 |
| June..... | 447.7 | 68.7 | 138 | | 141 | 127 | 106 | 101 | 839 | 833 |
| July..... | 442.1 | | 140 | 127 | 140 | 130 | 104 | 100 | 824 | 811 |
| August..... | 438.0 | | 138 | | 139 | 128 | 103 | 100 | 820 | 805 |
| September..... | 438.4 | 62.6 | 136 | | 139 | 128 | 102 | 100 | 812 | 804 |
| October..... | 441.4 | | 136 | 128 | 138 | 128 | 103 | 100 | 834 | 805 |
| November..... | 444.6 | | 136 | | 137 | 130 | 102 | 100 | 832 | 812 |
| December..... | 443.6 | 61.0 | 136 | | 134 | 132 | 100 | 101 | 835 | 809 |
| 1932 | | | | | | | | | | |
| January..... | 440.9 | | 135 | 127 | 132 | 131 | 99 | 103 | 827 | 814 |
| February..... | 435.8 | | 135 | | 129 | 131 | 99 | 102 | 810 | |
| March..... | | | 135 | | 128 | 129 | | 103 | | |

⁴ For second month following.⁵ Year.

Price Fixing Under Emergency Decree in Germany¹

THE fourth emergency decree of the German Government of December 8, 1931, created the office of Federal price commissioner and provided in general for a reduction of salaries and wages to the level of January, 1927. It was the task of the price commissioner to adjust retail prices to the present economic situation and to the new lowered standard of wages and salaries above mentioned. As a basis upon which to work, retail prices of commodities of vital importance were not later than January 1, 1932, to be reduced by at least 10 per cent as compared with the price level existing on June 30, 1931. Likewise, the commissioner was charged with the duty of controlling margins of profits and surcharges.

In addition to this the decree aimed at a general reduction of the wholesale price level in Germany. Prices fixed by cartels, syndicates, and agreements among large enterprises, as is the case in Germany in the iron producing industry, the iron and metal consuming industry, the building trades, the chemical, paper, glass, ceramic, textile, and fertilizers industries were, not later than January 1, 1932, to be reduced by at least 10 per cent as compared with the level existing on June 30, 1931. If the Federal minister considered a further reduction of such fixed prices essential for commodities of vital importance he was authorized to adopt appropriate measures. If the cartels, syndicates, etc., failed to comply with the provisions of the decree or the ministerial instructions, the pertinent provisions of the cartel or syndicate agreement and contracts for delivery were to become inoperative as of January 1, 1932. The foregoing provisions were also to apply to prices of so-called trade-marked commodities where the retail price is fixed by the seller of the article and not by the retailer. They were to apply also to potash and nitrogenous products.

The commissioner was under the direct supervision of the chancellor and was vested with very extensive powers. He was authorized to take forcible measures, if necessary, and was assured of the assistance of the Federal and State Governments. In carrying out his work, however, the commissioner did not resort to the law nor to public forces to gain the desired end. He relied entirely on personal negotiations with the interested parties and by vigorous persuasive methods was able to accomplish his purpose.

Although a downward tendency had been noted as far back as the beginning of 1930, prices fixed by cartels, syndicates, and sale agreements came in for particular attention on the part of the commissioner.

The index figure for wholesale prices as published by the Federal Statistical Office for the beginning of January, 1932, was 10 per cent lower than the figure for June 30, 1931, indicating that in the main the provisions of the emergency decree had actually been carried out. It is well to note that wholesale prices had been voluntarily reduced by 6 per cent by the first of December, 1931, so that the January index figure was only 4 per cent less than that of the previous December. The wholesale-price index figure of 101.4 on January 1, 1932, was almost at the pre-war level, since 1913 is taken as 100.

The following are some of the results of the activities of the price commissioner:

¹ Report of C. W. Gray, American vice consul at Berlin, Germany, dated Apr. 1, 1932.

Bread.—There was a general reduction of the bakers' profits, which, with a decrease in the price of flour, led to a reduction of 10 per cent in the price of bread.

Milk.—The price of milk was reduced from 6½ to 6¼ cents per quart.

Meat.—A maximum margin of profit was established for retail butchers, which in the case of pork must not exceed 3¼ cents per pound; beef, 4¼ cents per pound; veal and mutton, 5½ cents per pound. In Berlin the price of pork was reduced about 10 per cent; beef, about 17 per cent; veal and mutton, about 13 per cent.

Fish.—It is reported that retail prices of fish were reduced 10 per cent in all parts of Germany on January 1.

Coal.—Prices of hard coal and lignite, as listed in the official publication of the Government, were reduced 10 per cent at the beginning of January.

Gas.—The municipal gas works of Berlin reduced the price of gas 10 per cent.

Electricity.—It is reported that most of the electrical companies throughout Germany have reduced prices of electricity by from 8 to 10 per cent.

Transportation.—In Berlin the cost of transportation was reduced an average of about 9 per cent on the subway, street car, and omnibus service, and a slight reduction was made in taxi charges.

The association of German forwarding agents and companies reduced its charges on January 1, 1932, by 10 per cent, and on February 15 rates were further reduced by 10 per cent on shipments of raw materials, coal, building material, and foodstuffs, and by 5 per cent on semifinished products.

Beer.—After a reduction of the tax on beer the price was reduced 10 per cent.

Rents.—Rents on old buildings were reduced 10 per cent on the first of January and on new buildings the reduction was in proportion to the amount saved by the forced reduction of interest on mortgages.

WHOLESALE PRICES

Index Numbers of Wholesale Prices, April, 1932

WITH the March, 1932, issue the Bureau of Labor Statistics began the publication of all data relating to wholesale prices of commodities in a separate pamphlet. Heretofore a general summary of wholesale price movements has been included in the monthly separate devoted to prices. In the future a pamphlet will deal with retail prices, while this one will treat only of wholesale prices.

The following table presents the index numbers of wholesale prices by groups of commodities, for specified years, and by months, from January, 1931, to date.

INDEX NUMBERS OF WHOLESALE PRICES

[1926=100.0]

| Year and month | Farm products | Foods | Hides and leather products | Textile products | Fuel and lighting | Metals and metal products | Building materials | Chemicals and drugs | House-furnishing goods | Miscellaneous | All commodities |
|----------------|---------------|-------|----------------------------|------------------|-------------------|---------------------------|--------------------|---------------------|------------------------|---------------|-----------------|
| 1913..... | 71.5 | 64.2 | 68.1 | 57.3 | 61.3 | 90.8 | 56.7 | 80.2 | 56.3 | 93.1 | 69.8 |
| 1920..... | 150.7 | 137.4 | 171.3 | 164.8 | 163.7 | 149.4 | 150.1 | 164.7 | 141.8 | 167.5 | 154.4 |
| 1926..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1927..... | 99.4 | 96.7 | 107.7 | 95.6 | 88.3 | 96.3 | 94.7 | 96.8 | 97.5 | 91.0 | 95.4 |
| 1928..... | 105.9 | 101.0 | 121.4 | 95.5 | 84.3 | 97.0 | 94.1 | 95.6 | 95.1 | 85.4 | 96.7 |
| 1929..... | 104.9 | 99.9 | 109.1 | 90.4 | 83.0 | 100.5 | 95.4 | 94.2 | 94.3 | 82.6 | 95.3 |
| 1930..... | 88.3 | 90.5 | 100.0 | 80.3 | 78.5 | 92.1 | 89.9 | 89.1 | 92.7 | 77.7 | 86.4 |
| 1931..... | 64.8 | 74.6 | 86.1 | 66.3 | 67.5 | 84.5 | 79.2 | 79.3 | 84.9 | 69.8 | 73.0 |
| 1931: | | | | | | | | | | | |
| January..... | 73.1 | 80.7 | 88.7 | 71.3 | 73.3 | 86.9 | 83.8 | 84.5 | 88.3 | 72.2 | 78.2 |
| February..... | 70.1 | 78.0 | 86.9 | 70.9 | 72.5 | 86.5 | 82.5 | 83.3 | 88.1 | 71.5 | 76.8 |
| March..... | 70.6 | 77.6 | 87.6 | 70.0 | 68.3 | 86.4 | 82.5 | 82.9 | 88.0 | 72.0 | 76.0 |
| April..... | 70.1 | 76.3 | 87.5 | 68.2 | 65.4 | 85.7 | 81.5 | 81.3 | 87.9 | 71.5 | 74.8 |
| May..... | 67.1 | 73.8 | 87.6 | 67.4 | 65.3 | 85.0 | 80.0 | 80.5 | 86.8 | 70.5 | 73.2 |
| June..... | 65.4 | 73.3 | 88.0 | 66.6 | 62.9 | 84.4 | 79.3 | 79.4 | 86.4 | 69.7 | 72.1 |
| July..... | 64.9 | 74.0 | 89.4 | 66.5 | 62.9 | 84.3 | 78.1 | 78.9 | 85.7 | 69.7 | 72.0 |
| August..... | 63.5 | 74.6 | 88.7 | 65.5 | 66.5 | 83.9 | 77.6 | 76.9 | 84.9 | 68.3 | 72.1 |
| September..... | 60.5 | 73.7 | 85.0 | 64.5 | 67.4 | 83.9 | 77.0 | 76.3 | 82.7 | 68.2 | 71.2 |
| October..... | 58.8 | 73.3 | 82.5 | 63.0 | 67.8 | 82.8 | 76.1 | 75.6 | 81.0 | 66.6 | 70.3 |
| November..... | 58.7 | 71.0 | 81.6 | 62.2 | 69.4 | 82.6 | 76.2 | 76.1 | 80.9 | 68.7 | 70.2 |
| December..... | 55.7 | 69.1 | 79.8 | 60.8 | 68.3 | 82.2 | 75.7 | 76.1 | 78.5 | 66.8 | 68.6 |
| 1932: | | | | | | | | | | | |
| January..... | 52.8 | 64.7 | 79.3 | 59.9 | 67.9 | 81.8 | 74.8 | 75.7 | 77.7 | 65.6 | 67.3 |
| February..... | 50.6 | 62.5 | 78.3 | 59.8 | 68.3 | 80.9 | 73.4 | 75.5 | 77.5 | 64.7 | 66.3 |
| March..... | 50.2 | 62.3 | 77.3 | 58.7 | 67.9 | 80.8 | 73.2 | 75.3 | 77.1 | 64.7 | 66.0 |
| April..... | 49.2 | 61.0 | 75.0 | 57.0 | 70.2 | 80.3 | 72.5 | 74.4 | 76.3 | 64.7 | 65.5 |

INDEX NUMBERS OF SPECIFIED GROUPS OF COMMODITIES

| Group | April, 1931 | March, 1932 | April, 1932 |
|---|-------------|-------------|-------------|
| Raw materials..... | 68.3 | 56.1 | 55.5 |
| Semimanufactured articles..... | 71.5 | 60.8 | 59.6 |
| Finished products..... | 78.3 | 71.5 | 71.1 |
| Nonagricultural commodities..... | 75.7 | 69.3 | 68.9 |
| All commodities other than farm products and foods..... | 75.9 | 70.9 | 70.6 |

Weekly Index Numbers of Wholesale Prices

A SUMMARIZATION of the weekly index numbers for the 10 major groups of commodities as issued during the month of April will be found in the following statement:

INDEX NUMBERS OF WHOLESALE PRICES FOR THE WEEKS OF APRIL, 1932

| Group | Week ending— | | | | |
|---------------------------------|--------------|--------|---------|---------|---------|
| | Apr. 2 | Apr. 9 | Apr. 16 | Apr. 23 | Apr. 30 |
| All commodities..... | 65.9 | 65.7 | 66.0 | 65.8 | 65.5 |
| Farm products..... | 49.5 | 49.7 | 50.1 | 49.7 | 48.8 |
| Foods..... | 61.7 | 61.4 | 61.3 | 61.0 | 61.0 |
| Hides and leather products..... | 75.8 | 75.6 | 75.6 | 74.4 | 73.9 |
| Textile products..... | 58.4 | 57.7 | 57.2 | 56.8 | 56.5 |
| Fuel and lighting..... | 69.5 | 69.8 | 71.7 | 71.7 | 72.0 |
| Metals and metal products..... | 80.8 | 80.2 | 80.1 | 80.2 | 80.2 |
| Building materials..... | 73.1 | 72.9 | 72.4 | 72.2 | 72.4 |
| Chemicals and drugs..... | 74.4 | 74.3 | 74.5 | 74.5 | 74.4 |
| House-furnishing goods..... | 78.3 | 78.2 | 78.2 | 78.2 | 76.3 |
| Miscellaneous..... | 64.7 | 64.6 | 64.8 | 64.8 | 64.6 |

Wholesale Price Trends During Month

THE index number of wholesale prices as computed by the Bureau of Labor Statistics of the United States Department of Labor shows a slight decrease from March, 1932, to April, 1932. This index number, which includes 784 commodities or price series weighted according to the importance of each article, and based on the average prices for the year 1926 as 100.0, stands at 65.5 for April as compared with 66.0 for March, showing a decrease of approximately three-fourths of 1 per cent between the two months. When compared with April, 1931, with an index number of 74.8, a decrease of about 12½ per cent has been recorded.

In the group of farm products, decreases in the average prices of barley, corn, calves, steers, hogs, live poultry, cotton, lemons, oranges, peanuts, tobaccó, and wool caused the group as a whole to decline 2 per cent from the previous month. Increases in prices during the month were shown for oats, rye, wheat, cows, lambs, hay, onions, and sweetpotatoes.

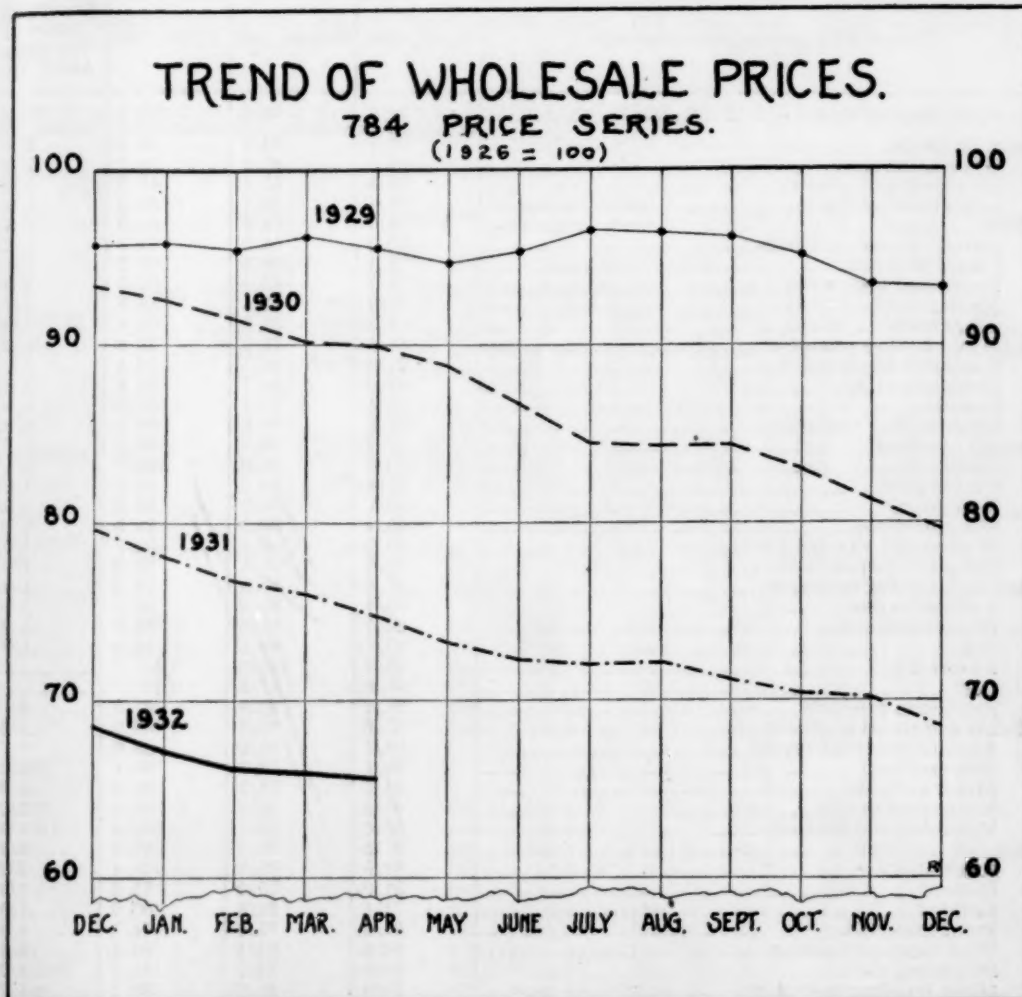
Among foods, price decreases were reported for butter, cheese, evaporated milk, most meats, lard, bread, canned fruits, and raw and granulated sugar. On the other hand, flour, bananas, and coffee averaged higher than in the month before. The group as a whole declined 2 per cent in April when compared with March.

The hides and leather products group decreased approximately 3 per cent during the month, with all the subgroups except other leather products sharing in the decline. The group of textile products as a whole decreased nearly 3 per cent from March to April, due to marked declines for cotton goods, knit goods, silk and rayon, woolen and worsted goods, and other textile products. The subgroup of clothing declined slightly.

In the group of fuel and lighting materials increases in the prices of fuel oil, gasoline, and crude petroleum more than offset decreases in the prices of anthracite coal, bituminous coal, coke, electricity, and gas. Due to the sharp advance in the prices of petroleum products the fuel and lighting group increased nearly 3½ per cent over the March level.

Metals and metal products showed a slight downward tendency for April. Increases in iron and steel were offset by decreases in motor vehicles and nonferrous metals. Agricultural implements and plumbing and heating fixtures showed practically no change between March and April. In the group of building materials, cement showed no change in average prices. Structural steel moved upward, while average prices for brick and tile, paint and paint materials, and other building materials continued their downward movement, forcing the group as a whole to decline approximately 1 per cent.

Mixed fertilizers showed further recession during April, as did also chemicals and drugs and pharmaceuticals. Fertilizer materials, on



the other hand, increased slightly in the month. The group as a whole decreased more than 1 per cent from the March level.

Furniture averaged 2 per cent lower in April than in March, while furnishings showed practically no change. As a whole the house-furnishing goods group declined about 1 per cent from the month before.

The general average of the miscellaneous commodity group for April remained at the March level. Increases in the prices of cattle feed, paper and pulp, and other miscellaneous items counterbalanced the further price recessions in crude rubber. Automobile tires and tubes showed no change between the two months.

The average for the group of all commodities other than farm products and foods remained unchanged for the two months. The April average for all of the other special groups showed decreases from the previous month, ranging from one-half of 1 per cent for finished products to 2 per cent for semimanufactured articles.

Between March and April, price decreases took place in 271 instances and increases in 79 instances, while in 434 instances no change in price occurred.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

| Commodity groups and subgroups | April, 1931 | March, 1932 | April, 1932 | Purchasing power of the dollar April, 1932 |
|---|-------------|-------------|-------------|--|
| All commodities..... | 74.8 | 66.0 | 65.5 | \$1.527 |
| Farm products..... | 70.1 | 50.2 | 49.2 | 2.033 |
| Grains..... | 59.5 | 43.5 | 44.5 | 2.247 |
| Livestock and poultry..... | 70.3 | 51.4 | 49.2 | 2.033 |
| Other farm products..... | 73.4 | 52.1 | 51.2 | 1.953 |
| Foods..... | 76.3 | 62.3 | 61.0 | 1.639 |
| Butter, cheese, and milk..... | 80.6 | 64.2 | 61.6 | 1.623 |
| Cereal products..... | 74.3 | 68.3 | 68.2 | 1.466 |
| Fruits and vegetables..... | 76.2 | 62.3 | 62.3 | 1.605 |
| Meats..... | 79.9 | 61.4 | 59.8 | 1.672 |
| Other foods..... | 69.9 | 57.1 | 55.8 | 1.792 |
| Hides and leather products..... | 87.5 | 77.3 | 75.0 | 1.333 |
| Boots and shoes..... | 94.8 | 88.5 | 88.4 | 1.131 |
| Hides and skins..... | 62.0 | 44.7 | 40.8 | 2.451 |
| Leather..... | 88.4 | 73.4 | 67.2 | 1.488 |
| Other leather products..... | 101.6 | 98.8 | 98.0 | 1.020 |
| Textile products..... | 68.2 | 58.7 | 57.0 | 1.754 |
| Clothing..... | 76.9 | 69.0 | 68.7 | 1.456 |
| Cotton goods..... | 71.4 | 56.2 | 55.1 | 1.815 |
| Knit goods..... | 60.7 | 54.9 | 51.9 | 1.927 |
| Silk and rayon..... | 43.4 | 33.5 | 31.3 | 3.195 |
| Woolen and worsted goods..... | 69.0 | 62.7 | 59.7 | 1.675 |
| Other textile products..... | 76.2 | 69.5 | 68.2 | 1.466 |
| Fuel and lighting materials..... | 65.4 | 67.9 | 70.2 | 1.425 |
| Anthracite coal..... | 86.4 | 89.9 | 85.7 | 1.167 |
| Bituminous coal..... | 84.4 | 83.5 | 82.7 | 1.209 |
| Coke..... | 83.7 | 80.4 | 79.8 | 1.253 |
| Electricity..... | 93.7 | 104.4 | (1) | |
| Gas..... | 96.1 | 97.5 | (1) | |
| Petroleum products..... | 37.4 | 39.8 | 45.5 | 2.198 |
| Metals and metal products..... | 85.7 | 80.8 | 80.3 | 1.245 |
| Agricultural implements..... | 94.3 | 85.0 | 85.0 | 1.176 |
| Iron and steel..... | 84.1 | 79.7 | 80.1 | 1.248 |
| Motor vehicles..... | 94.5 | 95.3 | 93.8 | 1.066 |
| Nonferrous metals..... | 67.5 | 50.5 | 49.3 | 2.028 |
| Plumbing and heating..... | 86.6 | 64.4 | 64.4 | 1.553 |
| Building materials..... | 81.5 | 73.2 | 72.5 | 1.379 |
| Brick and tile..... | 83.9 | 79.3 | 78.4 | 1.276 |
| Cement..... | 81.0 | 75.0 | 75.0 | 1.333 |
| Lumber..... | 73.4 | 61.5 | 60.0 | 1.667 |
| Paint materials..... | 81.2 | 75.4 | 74.7 | 1.339 |
| Plumbing and heating..... | 86.6 | 64.4 | 64.4 | 1.553 |
| Structural steel..... | 84.3 | 79.7 | 81.7 | 1.224 |
| Other building materials..... | 86.9 | 80.6 | 80.2 | 1.247 |
| Chemicals and drugs..... | 81.3 | 75.3 | 74.4 | 1.344 |
| Chemicals..... | 85.1 | 80.9 | 79.7 | 1.255 |
| Drugs and pharmaceuticals..... | 63.4 | 59.7 | 58.9 | 1.698 |
| Fertilizer materials..... | 80.6 | 68.6 | 70.1 | 1.427 |
| Mixed fertilizers..... | 83.5 | 73.2 | 71.1 | 1.406 |
| House-furnishing goods..... | 87.9 | 77.1 | 76.3 | 1.311 |
| Furnishings..... | 84.2 | 75.4 | 75.4 | 1.326 |
| Furniture..... | 91.9 | 79.1 | 77.4 | 1.292 |
| Miscellaneous..... | 71.5 | 64.7 | 64.7 | 1.546 |
| Automobile tires and tubes..... | 46.9 | 39.2 | 39.2 | 2.551 |
| Cattle feed..... | 81.2 | 52.4 | 53.4 | 1.873 |
| Paper and pulp..... | 82.1 | 76.8 | 76.8 | 1.302 |
| Rubber, crude..... | 13.3 | 7.2 | 6.6 | 15.152 |
| Other miscellaneous..... | 89.3 | 84.5 | 84.5 | 1.183 |
| Raw materials..... | 68.3 | 56.1 | 55.5 | 1.802 |
| Semimanufactured articles..... | 71.5 | 60.8 | 59.6 | 1.678 |
| Finished products..... | 78.3 | 71.5 | 71.1 | 1.406 |
| Nonagricultural commodities..... | 75.7 | 69.3 | 68.9 | 1.451 |
| All commodities less farm products and foods..... | 75.9 | 70.9 | 70.9 | 1.410 |

¹ Data not yet available.

Wholesale Prices in the United States and in Foreign Countries

IN THE following table the index numbers of wholesale prices in certain foreign countries and those of the Bureau of Labor Statistics of the United States Department of Labor have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the sources from which the information has been drawn, in certain cases being the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, there are important differences in the composition of the index numbers themselves. Indexes are shown for the years 1926 to 1931, inclusive, and by months since January, 1931.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

| Country---- | United States | Canada | Austria | Belgium | Czecho-slovakia | Den-mark | Finland | France | Ger-many | Italy |
|----------------------|----------------------------|-------------------------------|----------------------------|--------------------------------|------------------------------|------------------------|------------------------------|----------------------------|----------------------------|----------------|
| Computing agency---- | Bureau of Labor Statistics | Dominion Bureau of Statistics | Federal Statistical Bureau | Ministry of Industry and Labor | Central Bureau of Statistics | Statistical Department | Central Bureau of Statistics | General Statistical Bureau | Federal Statistical Bureau | Riccardo Bachi |
| Base period. | 1926 (100) | 1926 (100) | January-June, 1914 (100) | April, 1914 (100) | July, 1914 (100) | 1913 (100) | 1926 (100) | 1913 (100) | 1913 (100) | 1913 (100) |
| Commodities----- | 784 | 502 | 47 | 126 | 69 | 118 | 139 | 126 | 400 | 140 |
| 1926----- | 100.0 | 100.0 | 123 | 744 | 955 | 163 | 100 | 695 | 134.4 | 602.0 |
| 1927----- | 95.4 | 97.6 | 133 | 847 | 979 | 153 | 101 | 642 | 137.6 | 495.3 |
| 1928----- | 96.7 | 96.4 | 130 | 843 | 979 | 153 | 102 | 645 | 140.0 | 461.6 |
| 1929----- | 95.3 | 95.6 | 130 | 851 | 923 | 150 | 98 | 627 | 137.2 | 445.3 |
| 1930----- | 86.4 | 86.6 | 117 | 744 | 118.5 | 130 | 90 | 554 | 124.6 | 383.0 |
| 1931----- | 73.0 | 72.2 | 109 | 626 | 107.5 | 114 | 84 | ----- | 110.9 | ----- |
| 1931 | | | | | | | | | | |
| January----- | 78.2 | 76.7 | 105 | 661 | 110.1 | 118 | 86 | 541 | 115.2 | 341.7 |
| February----- | 76.8 | 76.0 | 107 | 658 | 108.9 | 117 | 86 | 538 | 114.0 | 338.1 |
| March----- | 76.0 | 75.1 | 107 | 660 | 108.8 | 116 | 86 | 539 | 113.9 | 339.3 |
| April----- | 74.8 | 74.5 | 108 | 652 | 110.5 | 115 | 85 | 540 | 113.7 | 337.0 |
| May----- | 73.2 | 73.0 | 107 | 640 | 110.3 | 113 | 84 | 520 | 113.3 | 331.7 |
| June----- | 72.1 | 72.2 | 110 | 642 | 108.7 | 110 | 83 | 518 | 112.3 | 326.5 |
| July----- | 72.0 | 71.7 | 114 | 635 | 112.1 | 110 | 82 | 500 | 111.7 | 324.3 |
| August----- | 72.1 | 70.9 | 110 | 616 | 107.8 | 109 | 81 | 488 | 110.2 | 321.6 |
| September----- | 71.2 | 70.0 | 108 | 597 | 105.2 | 109 | 79 | 473 | 108.6 | 319.1 |
| October----- | 70.3 | 70.4 | 109 | 591 | 104.6 | 113 | 82 | 457 | 107.1 | 322.2 |
| November----- | 70.2 | 70.6 | 112 | 584 | 104.3 | 117 | 87 | 447 | 106.6 | 320.4 |
| December----- | 68.6 | 70.3 | 112 | 573 | 103.8 | 119 | 92 | 442 | 103.7 | 318.9 |
| 1932 | | | | | | | | | | |
| January----- | 67.3 | 69.4 | 114 | 557 | 102.3 | 118 | 94 | 439 | 100.0 | 316.6 |
| February----- | 66.3 | 69.2 | 112 | 554 | 101.4 | 119 | 93 | 446 | 99.8 | 314.4 |
| March----- | 66.0 | 69.1 | 113 | 548 | 101.4 | 117 | 92 | ----- | 99.8 | 315.0 |

¹ In gold.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

| Country..... | Neth- er- lands | Nor- way ² | Spain | Swe- den | Swit- zer- land | United King- dom | Aus- tralia | New Zea- land ² | South Africa | Japan | China | India |
|--------------------------|--|--|--|----------------------------------|--|------------------------|--|--|--|--------------------------------|--|--|
| Computing agency..... | Central Bu- reau of Statist- ics | Central Bu- reau of Statist- ics | Minis- try of Labor and Previ- sion | Cham- ber of Com- merce | Federal Labor De- part- ment | Board of Trade | Bureau of Cen- sus and Statist- ics | Census and Statist- ics Office | Office of Cen- sus and Statist- ics | Bank of Japan Tokyo | National Tariff Com- mis- sion, Shang- hai | De- part- ment, etc., ² Cal- cutta |
| Base period.. | 1913 (100) | 1913 (100) | 1913 (100) | 1913 (100) | July, 1914 (100) | 1924 (100) | 1911 (1,000) | 1909-13 (1,000) | 1910 (1,000) | Octo- ber, 1900 (100) | 1926 (100) | July, 1914 (100) |
| Commodi- ties..... | 48 | 95 | 74 | 160 | 121 | 150 | 92 | 180 | 188 | 56 | 155 | 72 |
| 1926..... | 145 | ----- | 181 | 149 | 145 | 89.1 | 1832 | 1620 | 1387 | 237 | 100.0 | 148 |
| 1927..... | 148 | ----- | 172 | 146 | 142 | 85.2 | 1817 | 1541 | 1395 | 225 | 104.4 | 148 |
| 1928..... | 149 | 157 | 167 | 148 | 145 | 84.4 | 1792 | 1555 | 1354 | 226 | 101.7 | 145 |
| 1929..... | 142 | 148 | 171 | 140 | 141 | 82.1 | 1803 | 1552 | 1305 | 220 | 104.5 | 141 |
| 1930..... | 117 | 137 | 172 | 122 | 126 | 71.9 | 1596 | 1511 | 1155 | 181 | 114.8 | 116 |
| 1931..... | 97 | 122 | 174 | 111 | 110 | 62.6 | 1429 | 1394 | 1119 | 153 | 126.4 | 96 |
| 1931 | | | | | | | | | | | | |
| January..... | 105 | 128 | 173 | 115 | 115 | 64.3 | 1454 | 1475 | 1148 | 159 | 119.7 | 98 |
| February..... | 104 | 126 | 175 | 114 | 115 | 63.9 | 1448 | 1441 | ----- | 158 | 127.4 | 99 |
| March..... | 103 | 124 | 174 | 113 | 114 | 63.7 | 1456 | 1432 | ----- | 158 | 126.1 | 100 |
| April..... | 102 | 123 | 172 | 112 | 112 | 63.6 | 1447 | 1416 | 1115 | 158 | 126.2 | 98 |
| May..... | 102 | 121 | 169 | 111 | 111 | 62.8 | 1440 | 1399 | ----- | 154 | 127.5 | 97 |
| June..... | 100 | 120 | 169 | 110 | 110 | 62.1 | 1425 | 1392 | ----- | 151 | 129.2 | 93 |
| July..... | 97 | 120 | 175 | 110 | 109 | 61.5 | 1428 | 1377 | 1104 | 153 | 127.4 | 93 |
| August..... | 94 | 120 | 177 | 109 | 108 | 59.9 | 1399 | 1381 | ----- | 152 | 130.3 | 92 |
| September..... | 91 | 117 | 178 | 107 | 106 | 59.7 | 1391 | 1381 | ----- | 150 | 129.2 | 91 |
| October..... | 89 | 119 | 175 | 108 | 106 | 62.8 | 1402 | 1385 | 1109 | 147 | 126.9 | 96 |
| November..... | 89 | 119 | 176 | 110 | 106 | 64.0 | 1428 | 1394 | ----- | 147 | 124.8 | 97 |
| December..... | 85 | 122 | 177 | 111 | 103 | 63.7 | 1425 | 1392 | ----- | 151 | 121.8 | 98 |
| 1932 | | | | | | | | | | | | |
| January..... | 84 | 123 | 176 | 109 | 101 | 63.7 | 1414 | 1393 | 1083 | 159 | 119.9 | 97 |
| February..... | 83 | 123 | 178 | 110 | 100 | 63.4 | ----- | ----- | ----- | 161 | ----- | 97 |
| March..... | 82 | 122 | ----- | 109 | 99 | 63.0 | ----- | ----- | ----- | 158 | ----- | 94 |

¹ Revised figures.² Department of Commercial Intelligence and Statistics.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for March, 1932

By J. J. KUNNA, CHIEF STATISTICIAN, UNITED STATES BUREAU OF IMMIGRATION

IMMIGRATION during March continued at a low level, with 2,103 immigrant aliens admitted, as against an average of 3,242 for the preceding eight months of the current fiscal year, and 3,577 for the corresponding month a year ago. The number for March, 1932, was 74 per cent below the monthly average of 8,095 for the last fiscal year, and 90 per cent below the 20,142 monthly admissions during 1930, the last full year of normal immigration.

Since 1930 German immigrants have dropped off 92 per cent, Irish 98 per cent, Hebrew 80 per cent, Italian 68 per cent, and Mexican 87 per cent.

During March, 1,408 Europeans came to this country for intended future permanent residence. Italy led the list with 604, about 70 per cent of whom were admitted as wives and unmarried children of American citizens. Germany contributed 145, Poland 137, and Great Britain 86. Other European countries sent less than 50 each. There were 309 immigrants from Canada, 147 from Mexico, 96 from Asia, and 143 from other countries.

In the same month, 6,239 resident aliens of the United States left for intended future permanent residence in a foreign country, 2,932 going to Europe, 360 to Asia, 2,399 to Mexico, and 548 to Canada and other countries.

For the first time in the history of the immigration service, deportations during a single month outnumbered the immigrants admitted. A record number of 2,112 aliens were deported from the United States during March, 1932, which is more than twice the number for the same month in 1928 and larger than the total for the entire fiscal year 1918. Of the March, 1932, deportees, 697 were sent to Mexico, 613 to Asia (mostly Chinese to China), 545 to Europe, 183 to Canada, and 74 to other countries. The principal causes for their deportation were: Entered without proper visa (974), remained longer than permitted (361), criminal and immoral classes (259), and mentally or physically defective (149). Less than 8 per cent of these deportees were females and about three-fifths of the total were Mexicans and Chinese.

Indigent aliens returned to their native land at their own request numbered 299 during March, 1932, the bulk of whom were bound for European countries, principally Scotland, England, Germany, Italy, and Sweden.

During the month of March, 1932, a total of 11,351 aliens of all classes were admitted to the United States. Of the total, including 2,103 immigrants and 9,248 nonimmigrants, 4,168 came in under the

immigration act of 1924 as returning residents, 2,705 were persons passing through the country on their way elsewhere, 2,175 entered as temporary visitors for business or pleasure, 833 as quota immigrants, 717 as husbands, wives, and unmarried children of American citizens, and 391 as natives of nonquota countries, principally Canada and Mexico. The remaining 362 aliens entered as Government officials, ministers, professors, and other miscellaneous classes. Seven thousand seven hundred and forty-nine gave European countries as their place of birth, principally Great Britain, Italy, Germany, Scandinavia, France, and Poland, in the order given; 1,539 were born in Canada, 375 in Mexico, 684 in Asia, 549 in the West Indies, 93 in Central America, 172 in South America, and 190 in other countries.

INWARD AND OUTWARD PASSENGER MOVEMENT, JULY 1, 1931, TO MARCH 31, 1932

| Period | Inward | | | | | Aliens de- barred from enter- ing ¹ | Outward | | | | | Aliens de- ported after enter- ing ² |
|---------------|-----------------|------------------------|----------|--------------------------------------|----------|--|-----------------|-----------------------|----------|--|----------|---|
| | Aliens admitted | | | United States citizens arrived | Total | | Aliens departed | | | United States citizens de- parted | Total | |
| | Immi- grant | Non- immi- grant | Total | | | | Emi- grant | Non- emi- grant | Total | | | |
| 1931 | | | | | | | | | | | | |
| July----- | 3, 174 | 12, 361 | 15, 535 | 30, 944 | 46, 479 | 761 | 7, 428 | 20, 450 | 27, 878 | 46, 961 | 74, 839 | 1, 681 |
| August----- | 4, 090 | 16, 580 | 20, 670 | 59, 372 | 80, 042 | 657 | 9, 541 | 23, 009 | 32, 550 | 65, 895 | 98, 445 | 1, 584 |
| September.. | 5, 017 | 20, 940 | 25, 957 | 62, 581 | 88, 538 | 684 | 8, 733 | 20, 393 | 29, 126 | 42, 247 | 71, 378 | 1, 446 |
| October----- | 3, 913 | 17, 096 | 21, 009 | 32, 427 | 53, 436 | 806 | 10, 857 | 16, 525 | 27, 382 | 35, 016 | 62, 398 | 1, 663 |
| November.... | 2, 899 | 9, 832 | 12, 731 | 16, 823 | 29, 554 | 573 | 11, 318 | 14, 271 | 25, 589 | 23, 224 | 48, 813 | 1, 524 |
| December.... | 2, 642 | 8, 086 | 10, 728 | 16, 932 | 27, 660 | 485 | 10, 727 | 17, 370 | 28, 097 | 24, 351 | 52, 448 | 1, 336 |
| 1932 | | | | | | | | | | | | |
| January----- | 2, 220 | 7, 242 | 9, 462 | 17, 158 | 26, 620 | 577 | 8, 550 | 14, 093 | 23, 243 | 25, 016 | 48, 259 | 1, 537 |
| February----- | 1, 984 | 7, 346 | 9, 330 | 19, 829 | 29, 159 | 392 | 6, 188 | 9, 691 | 15, 879 | 22, 920 | 38, 799 | 1, 505 |
| March----- | 2, 103 | 9, 248 | 11, 351 | 22, 012 | 33, 363 | 445 | 6, 239 | 10, 097 | 16, 336 | 24, 718 | 41, 054 | 2, 112 |
| Total.. | 28, 042 | 108, 731 | 136, 773 | 278, 078 | 414, 851 | 5, 380 | 79, 581 | 146, 499 | 226, 080 | 310, 348 | 536, 428 | 14, 388 |

¹ These aliens are not included among arrivals, as they were not permitted to enter the United States.

² These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

PUBLICATIONS RELATING TO LABOR

Official—United States

MINNESOTA.—Compensation Insurance Board. *Fourth biennial bulletin, covering period ending December 31, 1930. St. Paul, 1931. 24 pp., charts.*

A discussion of the supervision of compensation insurance premium rate changes in Minnesota. Tables show the experience of insurance companies operating in the State, comparison of compensation benefits in various States, and other data relating to rate making.

NEW JERSEY.—Commission to Investigate the Employment of Migratory Children. *Supplement to the report of the commission. Trenton, 1932. 64 pp.*

Reviewed briefly in this issue of the Labor Review.

NEW YORK.—Comptroller. *Eleventh report on the operation of the State Employees' Retirement System, together with the report of the actuary on the eleventh valuation of its assets and liabilities, as of June 30, 1931. New York, 1932. 50 pp. Legislative Document (1932), No. 12.*

—Department of Labor. *Special Bulletin No. 173: Unemployment in Syracuse, November, 1931. Issued by Division of Statistics and Information. New York, 1932. 46 pp., charts.*

A digest of the data obtained in this survey was published in the Labor Review for April, 1932.

OHIO.—Commission on Unemployment Insurance. *Questions to consider with respect to an unemployment insurance law suitable to conditions in the State of Ohio. Columbus, 1932. 11 pp.*

Questions are raised as to the proper scope of unemployment insurance, the amount of premiums and contributions, benefits to be paid, insurance carrier, and administration.

ORLEANS PARISH (LOUISIANA).—Factories Inspection Department. *Twenty-fourth report, year ending December 31, 1931. New Orleans, 1932. 8 pp.*

Data on accidents, taken from the report, are given in this issue of the Labor Review.

PRESIDENT'S CONFERENCE ON HOME BUILDING AND HOME OWNERSHIP.—*Planning for residential districts. Reports of the committees on city planning and zoning, subdivision, layout, utilities for houses, and landscape planning and planting. Washington, Commerce Building, 1932. 227 pp., plans, illus.*

PRESIDENT'S ORGANIZATION ON UNEMPLOYMENT RELIEF.—*Spreading work—methods and plans in use, by William J. Barrett. Washington, Department of Commerce, 1932. 27 pp.*

VIRGINIA.—League of Virginia Municipalities and State Department of Public Welfare. *Plans of unemployment relief in Virginia cities and towns. Richmond, 1932. 20 pp.*

This pamphlet contains statistics as to unemployment in Virginia, outlines various relief plans being carried through, and shows copies of application blanks and diet lists that are used in the administration of relief.

WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION.—Committee on Vocational Guidance and Child Labor. *Report of the subcommittee on child labor.* New York, Century Co., 1932. 592 pp.

Reviewed in this issue.

— — — *Report of the subcommittee on vocational guidance.* New York, Century Co., 1932. 396 pp., illus.

The recommendations of the vocational guidance committee were published in the January, 1932, issue of the Labor Review (pp. 80–89).

UNITED STATES.—Department of Commerce. Bureau of Mines. *List of publications, Bureau of Mines, complete from establishment of bureau, 1910 to June 30, 1931, with an index by subjects and authors.* Washington, 1932. 241 pp.

— — — *Technical Paper 507: Explosions in Washington coal mines,* by S. H. Ash. Washington, 1931. 52 pp., charts.

Contains data on conditions bearing directly on the prevention of explosions, and discussion of mining conditions and practices relating to ventilation, gas, and dust at the coal mines in the State of Washington, where the number of explosions has been far higher than the average for the country.

— — — *Technical Paper 508: Coke-oven accidents in the United States during the calendar year 1930,* by W. W. Adams and L. Chenoweth. Washington, 1931. 33 pp.

Reviewed in this issue.

— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 560: Wages and hours of labor in the lumber industry in the United States, 1930.* Washington, 1932. 86 pp.

An advance summary of the data obtained in this survey was published in the Labor Review for April, 1931 (pp. 177–182).

— — — *Bulletin No. 561: Public old-age pensions and insurance in the United States and in foreign countries.* Washington, 1932. 367 pp.

Part 1 reviews the history of old-age pension legislation in the United States, analyzes the various State laws (giving also their text), and gives data as to the actual operation of these laws up to the end of 1930. (Data as to the 1931 operation, supplementing this report, are given in this issue of the Labor Review.)

Part 2 gives a description and the latest available figures of operation of the old-age pension systems in each of 39 foreign countries.

— — — *Bulletin No. 564: Proceedings of the eighteenth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Richmond, Va., October 5–8, 1931.* Washington, 1932. 309 pp.

A short account of the proceedings at this meeting was published in the Labor Review for November, 1931 (pp. 93–96).

— — — Children's Bureau. *Family welfare: Summary of expenditures for relief, general family welfare and relief, mothers' aid, veterans' aid,* by Glenn Steele. Washington, 1932. 62 pp., charts. (Separate from Publication No. 209, *Social statistics in child welfare and related fields—annual report for the registration area for the year 1930.*)

— — — Women's Bureau. *Bulletin No. 88: The employment of women in slaughtering and meat packing,* by Mary Elizabeth Pidgeon. Washington, 1932. 208 pp., charts, illus.

In addition to the employment data, information is given on earnings, working hours, and economic status of the families of the workers studied. The survey covered over 6,000 women in 34 plants.

— Department of the Interior. Office of Education. *Pamphlet No. 24, November, 1931: Salaries in land-grant universities and colleges,* by John H. McNeeley. Washington, 1932. 27 pp.

The salaries reported upon are for the academic year 1927–28 and for teachers in selected fields of study.

UNITED STATES. Federal Farm Board. *Second annual report, for the year ending June 30, 1931. Washington, 1931. 95 pp. (H. Doc. No. 124, 72d Cong., 1st sess.)*

Report shows that up to June 30, 1931, the board made loans from the revolving fund to 150 cooperative associations with which were affiliated approximately 3,375 regional or local associations having 1,100,000 farmer members.

— Federal Trade Commission. *Chain stores: Cooperative grocery chains. Washington, 1932. 199 pp. (S. Doc. No. 12, 72d Cong., 1st sess.)*

— Interstate Commerce Commission. Bureau of Statistics. *Forty-fourth annual report on the statistics of railways in the United States, for the year ended December 31, 1930, including also selected data relating to other common carriers subject to the interstate commerce act for the year 1930. Washington, 1932. 152; 276 pp.*

Official—Foreign Countries

ALBERTA (CANADA).—Workmen's Compensation Board. *Fourteenth annual report, for the year ended December 31, 1931. Edmonton, 1932. 46 pp.*

Reviewed in this issue.

AUSTRALIA.—Bureau of Census and Statistics. *Labor report, 1930 (No. 21). Canberra, 1931. 180 pp.*

Includes data on wholesale and retail prices, rents, wages, employment, accidents, and workers' and employers' organizations.

— — — *Production (Bulletin No. 24): Summary of Australian production statistics for the years 1919–20 to 1929–30. Canberra, [1931?]. 112 pp.*

Contains statistics on employment in mines, factories, and slaughtering establishments, wages in factories, and accidents in mines.

AUSTRIA.—Bundesamt für Statistik. *Gewerbliche Betriebszählung in der Republik Österreich vom 14. Juni 1930. Ergebnisse für Wien. Vienna, 1932. 56 pp.*

An industrial census was taken in Austria as of June 14, 1930. The publication noted above contains statistical data obtained in this census for the city of Vienna and includes information on employment of wage earners and salaried employees by industries and occupations, aside from agricultural pursuits, which are covered in separate reports. Similar reports will be published for the other districts of Austria.

— — — *Landwirtschaftliche Betriebszählung in der Republik Österreich vom 14. Juni 1930. Ergebnisse für Niederösterreich. Vienna, 1932. 55 pp.*

Includes statistical data on employment of workers in agriculture in Lower Austria, collected in the industrial census of Austria on June 14, 1930. Similar reports will be published for the other districts of Austria.

BULGARIA.—Direction Générale de la Statistique. *Annuaire statistique du Royaume de Bulgarie, 1931. Sofia, 1931. 650 pp. (In Bulgarian and French.)*

Contains the results of an industrial census made at the end of 1926, showing number of employees, wages, strikes, industrial accidents, etc.; and data on prices, cost of living, family budgets, operations of Central Cooperative Bank of Bulgaria and other cooperative societies, retirement funds, and workmen's compensation.

CZECHOSLOVAKIA.—Institut Social. *Publication No. 55: Les assurances sociales en Tchécoslovaquie. Prague, 1931. 187 pp.*

Presents a number of articles by different authors on various phases of social insurance in Czechoslovakia, including old age and invalidity insurance, insurance against accidents and sickness, public insurance for salaried employees, financial difficulties of public insurance, and measures for prevention of accidents and sickness.

FINLAND.—[Sosialiministeriö. Sosialinen Tutkimus- ja Tilastotoimisto.] *Tapaturmatilastoa: Työssä sattuneet tapaturmat vuosina 1926 ja 1927, uusi sarja 1. Helsingfors, 1932. 85 pp. (Suomen Virallinen Tilasto XXVI, A.)*

Statistics of industrial accidents in Finland in 1926 and 1927. The report includes a table of contents in French.

— Tilastollisessa Päätoimistossa. *Teollisuustilastoa vuonna 1930. Helsingfors, 1932. 135 pp. (Suomen Virallinen Tilasto XVIII, A 47.)*

Contains industrial statistics of Finland for the year 1930, including number of workers, value of product, industrial disputes, etc. The report includes table of contents, table heads, and résumé in French.

GREAT BRITAIN.—Home Office. *Safety Pamphlet No. 14: Safety organization in factories. London, 1931. 13 pp.*

Information relating to the essential features of a safety organization, the establishment and duties of safety committees, duties of the safety man, safety education for the workers, accident records, and personal or impersonal factors in the prevention of accidents.

— Ministry of Labor. *Supplement to the analytical guide to decisions given by the umpire respecting claims for [unemployment] benefit: Chapter XI, Dependants' benefit; Chapter XII, Transitional conditions. London, 1932. 67 pp. (Supplement No. 1 to U. I. Code 7.)*

This supplement cancels and replaces Chapters XI and XII of the original prints of Unemployment Insurance Code 7.

— Royal Commission on Labor in India. *Evidence. 11 volumes. London, 1931. [Various paging.]*

These volumes include data on wages and hours of labor, housing, health and sanitary conditions, industrial accidents and their prevention, labor legislation, industrial disputes, efficiency of workers, etc.

INTERNATIONAL LABOR OFFICE.—*International Labor Conference, sixteenth session, Geneva, 1932. Report of the director [of the International Labor Office to the Conference]. Geneva, 1932. 111 pp. (World Peace Foundation, American agent.)*

— — *Summary of annual reports under article 408. Geneva, 1932. 402 pp. (World Peace Foundation, American agent.)*

NOVA SCOTIA (CANADA).—Department of Public Works and Mines. *Annual report on mines, 1931. Halifax, 1932. 296 pp., diagrams, illus.*

In the fiscal year under review, 4,745,005 tons of coal were produced from the mines of Nova Scotia—a decrease of 1,009,497 as compared with 1930.

— Workmen's Compensation Board. *Report for 1931. Halifax, 1932. 32 pp. Reviewed in this issue.*

SOUTH AUSTRALIA (AUSTRALIA).—Factories and Steam Boilers Department. *Annual report, for the year ending December 31, 1930. Adelaide, 1931. 20 pp.*

The report shows number of workers employed, by sex and age; average weekly wages; working hours per week fixed by industrial boards; and accidents, in various industries.

SOVIET UNION (U. S. S. R.).—Central Office of Accountancy. *People's economy of U. S. S. R.: Statistical handbook for 1932. Moscow, 1932. xlviii, 670 pp. (In Russian.)*

Gives statistical information in regard to the economic activities and developments in Soviet Russia, including data on workers, wages, hours of labor, social insurance, etc., up to and including 1930.

STOCKHOLM (SWEDEN).—Statistiska Kontor. *Statistisk årsbok för Stockholms stad, 1931. Stockholm, 1931. 290 pp., maps, charts. (In Swedish and French.)*

Contains data on housing and housing conditions (including dwellings constructed by cooperative housing societies), retail prices, cost of living and family budgets, mutual aid societies, cooperative societies, and wages in various industries and professions.

TURKEY.—İstatistik Umum Müdürlüğü. *İstatistik yillığı, 1930-31. Ankara, 1931. 433 pp., charts. (In Turkish and French.)*

This Turkish statistical yearbook for 1930 and 1931 includes reports covering the educational system of the country, hygiene, social assistance, number of industrial establishments and number of workers, and cost-of-living figures.

Unofficial

BUILDING TRADES EMPLOYERS' ASSOCIATION OF THE CITY OF NEW YORK. Committee on Accident Prevention. *Bulletin No. 13: Industrial accident facts, 1932 edition. New York, 2 Park Avenue, 1932. 12 pp.*

Reviewed in this issue.

BURGY, J. HERBERT. *The New England cotton textile industry: A study in industrial geography. Baltimore, Waverly Press (Inc.), 1932. 246 pp., maps, charts, illus.*

Traces the growth of the cotton-textile industry in New England, showing the influence of geographic factors on the development of the industry, temperature and humidity readings and average monthly rainfall in various localities over varying periods, consumption of raw materials and of power, number of workers, wages and hours of labor, housing of workers, source of labor, etc.

BURNS, ROBERT E. *I am a fugitive from a Georgia chain gang! New York, Vanguard Press, 1932. 257 pp.*

CARSON, WILLIAM J. *Savings and employee savings plans in Philadelphia. Philadelphia, University of Pennsylvania Press, 1932. 112 pp., charts. (Research Studies XVII, Industrial Research Department, Wharton School of Finance and Commerce.)*

This study of savings and thrift plans among wage earners in Philadelphia deals with the amount and growth of savings in recent years, the types of plans followed, and the channels through which the savings have been accumulated. The details of a large number of company plans are given and the seasonal and cyclical variations in receipts and payments of mutual savings societies are analyzed.

COHEN, PERCY. *The British system of social insurance. London, Philip Allan, 1932. 278 pp.*

This account of the British social-insurance system covers health insurance, widows', orphans', and old-age contributory pensions, noncontributory old-age pensions, workmen's compensation, industrial insurance, and unemployment insurance. The principal provisions of each type of insurance are given, including the coverage and the rights and obligations of the insured, as well as the history of the development of the different systems.

COMITÉ CENTRAL DES HOUILLÈRES DE FRANCE. *Rapport présenté à l'assemblée générale ordinaire du 18 Mars 1932. Paris, 1932. 19 pp.*

The annual report of the Central Committee of Coal Operators in France for the year 1931. It contains statistics of production, wages, and the average output of workers in the different coal-mining sections.

COMMITTEE ON THE COSTS OF MEDICAL CARE. *Miscellaneous Contributions on the Costs of Medical Care, No. 11: The extent and adequacy of life insurance protection in the United States, by Mary Dublin. Washington, 910 Seventeenth Street NW., 1932. 14 pp.*

Reviewed in this issue.

DENNIS, LAWRENCE. *Is capitalism doomed?* New York, Harper & Bros., 1932. 328 pp.

DUNN, ROBERT W. *Spying on workers.* New York, International Pamphlets (No. 17), 799 Broadway, 1932. 31 pp.

GIRAUD, RENÉ. *Vers une internationale économique.* Paris, Librairie Valois, 1931. 239 pp.

A discussion of international economic problems. The first part deals with the search for a new economic balance as evidenced by the movement toward scientific labor organization, the Russian experiment, and the proposed United States of Europe. The second and third parts treat, respectively, of regulated production and the politics of to-morrow.

GORSELINE, DONALD EUGENE. *The effect of schooling upon income.* Bloomington, Graduate Council of Indiana University, 1932. 284 pp.

GRAHAM, FRANK D. *The abolition of unemployment.* Baltimore, Williams & Wilkins Co., 1932. 16 pp.

L'INSTITUT INTERNATIONAL DE STATISTIQUE. *Aperçu de la démographie des divers pays du monde 1931.* The Hague, 1932. xxxvi, 469 pp. (In French.)

Contains statistical data on the condition of the population and its movement in various countries of the world for the year 1931, including births and deaths, racial attachment, marriages, divorces, religion, education, etc.

— *Bulletin, Tome XXV—2^{me} livraison.* Tokio, 1931. 392; 282* pp.

A collection of reports on Japan and China presented to the nineteenth session of the International Institute of Statistics, Tokyo, 1930. The Japanese family-budget inquiry of 1926-27, included in the section of this volume which deals with social statistics, was summarized in the May, 1931, issue of the Labor Review.

INTERNATIONAL INDUSTRIAL RELATIONS ASSOCIATION. *Employment and unemployment in pre-war and Soviet Russia.* Report submitted to the World Social Economic Congress, Amsterdam, August 23-29, 1931, by Susan M. Kingsbury and Mildred Fairchild. The Hague, 1932. 132 pp., charts. (New York office, Room 600, 130 East Twenty-second Street.)

— *Social economic planning in the Union of Soviet Socialist Republics.* Report of delegation from the U. S. S. R. to the World Social Economic Congress, Amsterdam, August 23-29, 1931. The Hague, [1932?]. 168 pp. (New York office, Room 600, 130 East Twenty-second Street.)

INTERNATIONAL INDUSTRIAL RELATIONS INSTITUTE. *International unemployment: A study of fluctuations in employment and unemployment in several countries, 1910-1930.* Contributed to the World Social Economic Congress, Amsterdam, August, 1931. The Hague, 1932. 496 pp., charts. (New York office, Room 600, 130 East Twenty-second Street.)

Includes chapters on fluctuations in unemployment in Australia, employment and income of labor in Canada, industry and labor in China, unemployment in Germany, fluctuations in unemployment in France, fluctuations in unemployment in Great Britain, employment and income of labor in the United States, and employment and unemployment in pre-war and Soviet Russia. The International Industrial Relations Institute was formerly the International Industrial Relations Association, the name having been changed in March, 1932.

JANSON, FLORENCE EDITH. *The background of Swedish immigration, 1840-1930.* Chicago, 1931. 517 pp., maps, charts. (University of Chicago Social Service Monographs No. 15.)

Discusses the economic, social, religious, and political conditions in Sweden in the preceding century in connection with the exodus of the people of that country to the United States. The forces on this side of the Atlantic tending to stimulate Swedish immigration are also traced through United States diplomatic and consular reports and through advertisements and articles in the Swedish press.

LENNOX, JOHN S. *The cause and cure of unemployment.* Pittsfield, Mass., Eagle Printing and Binding Co., 1932. 68 pp.

The writer believes the cause of unemployment lies in the financial system which adheres to a fixed monetary standard, and that in place of a metallic standard of money a credit system should be substituted in which the value of money would remain "indefinitely constant in terms of the average price of all commodities."

METROPOLITAN LIFE INSURANCE CO. *Monograph 4, Social Insurance Series: Social insurance legislation.* New York, 1932. 70 pp.

This report presents the original and present provisions of the unemployment insurance, health insurance, and pension systems in Great Britain, Germany, Belgium, Denmark, Italy, and Switzerland.

— *Monograph 5, Social Insurance Series: The administration of unemployment insurance.* New York, 1932. 27 pp., chart.

This report describes briefly the administrative organization and procedure of the unemployment-insurance systems in 11 European countries.

NATIONAL CONFERENCE ON CITY PLANNING. *Planning problems of town, city, and region. Papers and discussions at the Twenty-third National Conference on City Planning, held at Rochester, N. Y., June 22-24, 1931.* Philadelphia, Wm. F. Fell Co., 1931. 228 pp., illus.

NATIONAL INDUSTRIAL CONFERENCE BOARD (INC.). *The cost of living in the United States in 1931.* New York, 247 Park Avenue, 1932. 52 pp., charts.

O'ROCKIE, JOHN. *What means this unemployment? or What's wrong with the world? being an economic inquiry into the present social discontent.* Melbourne, Australia, Fraser & Jenkinson Pty. (Ltd.), 1931. 587 pp.

OUDEGEEST, J. *De geschiedenis der zelfstandige vakbeweging in Nederland.* Vol. I, 1926, 504 pp.; Vol. II, 1932, 402 pp. Illus. Amsterdam. Uitgave van het N. V. V.

Contains a history of the independent labor-union movement in the Netherlands, including information on cooperative organizations, social legislation, unemployment, trade agreements, insurance against unemployment, cost of living, industrial disputes, youth movement among wage earners, etc.

PACIFIC COAST MARINE SAFETY CODE COMMITTEE. *Pacific Coast marine safety code: Stevedoring operations on board ship.* San Francisco, 1931. 47 pp. (Revised November 6, 1931.)

Safety rules based on safe practices adopted by prominent operators and approved by shipowners, water-front employers, and longshoremen from the major ports on the Pacific Coast, superseding sectional safety rules issued in 1928 in San Francisco, Los Angeles, and Seattle.

PEFFER, NATHANIEL. *Educational experiments in industry.* New York, Macmillan Co., 1932. 207 pp.

The writer declares that industrial education under private auspices and vocational education under public administration are "both groping, sometimes blindly." He suggests that little progress will be made without more knowledge of the goal to be attained and more daring in the exploration for paths to that goal.

PEGNUM, D. F. *Rate theories and the California Railroad Commission.* Berkeley, University of California Press, 1932. 165 pp. (University of California Publications in Economics, vol. 10.)

PERMANENT INTERNATIONAL CONFERENCE OF PRIVATE ORGANIZATIONS FOR THE PROTECTION AND WELFARE OF MIGRANTS (C. P. P. M.). *Document No. 6: The international conference for the protection of migrants, its work and program.* Geneva, 10, Rue de la Bourse, 1932. 7 pp.

PRINCETON UNIVERSITY. [Department of Economics and Social Institutions.] Industrial Relations Section. *The use of building and loan associations in company programs for employee savings and investment. Princeton, 1932. 48 pp. (Mimeographed.)*

Reviewed in this issue.

RYAN, FREDERICK L. *A history of labor legislation in Oklahoma. Norman, University of Oklahoma Press, 1932. 144 pp.*

SCHWENNING, G. T. *Protection of employees against abrupt discharge. Reprinted from Michigan Law Review, Ann Arbor, March, 1932, pp. 666-698.*

A review of plans for payment of dismissal wages either through private initiative or as a result of legislative enactments in the United States and foreign countries.

VAN VLECK, WILLIAM C. *The administrative control of aliens. A study in administrative law and procedure. New York, Commonwealth Fund, 1932. 260 pp.*

Among the major subjects of this volume are. The growth of immigration legislation, the exclusion process, the expulsion process, and the judicial review.

ZENTRALVERBAND DER HOTEL-, RESTAURANT- UND CAFÉ-ANGESTELLTEN. *Bericht der Hauptverwaltung, 1931. Berlin N 24, Elsässer Strasse 86-88, 1932. 158 pp., charts, illus.*

Annual report on the activities of the unions of the salaried employees of hotels, restaurants, and cafés in Germany for the year 1931, published by the central office of these unions, including information on salaries, trade agreements, hours of labor, employment service, disputes, works councils, etc.

LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

The following is a list of all bulletins of the Bureau of Labor Statistics published since July, 1912, except that in the case of bulletins giving the results of periodic surveys of the bureau only the latest bulletin on any one subject is here listed.

A complete list of the reports and bulletins issued prior to July, 1912, as well as the bulletins published since that date, will be furnished on application. Bulletins marked thus () are out of print.*

Conciliation and arbitration (including strikes and lockouts).

- *No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
- *No. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. [1913.]
- No. 139. Michigan copper district strike. [1914.]
- *No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
- *No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
- *No. 191. Collective bargaining in the anthracite-coal industry. [1916.]
- *No. 198. Collective agreements in the men's clothing industry. [1916.]
- No. 233. Operation of the industrial disputes investigation act of Canada. [1918.]
- No. 255. Joint industrial councils in Great Britain. [1919.]
- No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
- No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]
- *No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
- No. 322. Kansas Court of Industrial Relations. [1923.]
- No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]
- No. 402. Collective bargaining by actors. [1926.]
- No. 468. Trade agreements, 1927.
- No. 481. Joint industrial control in the book and job printing industry. [1928.]

Cooperation.

- No. 313. Consumers' cooperative societies in the United States in 1920.
- No. 314. Cooperative credit societies (credit unions) in America and in foreign countries. [1922.]
- No. 437. Cooperative movement in the United States in 1925 (other than agricultural).
- No. 531. Consumers', credit, and productive cooperative societies, 1929.

Employment and unemployment.

- *No. 109. Statistics of unemployment and the work of employment offices [in the United States]. [1913.]
- *No. 172. Unemployment in New York City, N. Y. [1915.]
- *No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
- *No. 195. Unemployment in the United States. [1916.]
- *No. 196. Proceedings of Employment Managers' Conference held at Minneapolis, Minn., January 19 and 20, 1916.
- *No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
- No. 206. The British system of labor exchanges. [1916.]
- *No. 227. Proceedings of Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- *No. 235. Employment system of the Lake Carriers' Association. [1918.]
- *No. 241. Public employment offices in the United States. [1918.]
- *No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9-11, 1918.
- *No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
- No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.
- No. 542. Report of the Advisory Committee on Employment Statistics. [1931.]
- No. 544. Unemployment-benefit plans in the United States and unemployment insurance in foreign countries. [1931.]
- No. 553. Fluctuation in employment in Ohio, 1914 to 1929.
- No. 555. Social and economic character of unemployment in Philadelphia, April, 1930.

Foreign labor laws.

- *No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]
- No. 494. Labor legislation of Uruguay. [1929.]
- No. 510. Labor legislation of Argentina. [1930.]
- No. 529. Workmen's compensation legislation of the Latin American countries. [1930.]
- No. 549. Labor legislation of Venezuela. [1931.]
- No. 554. Labor legislation of Paraguay. [1931.]
- No. 559. Labor legislation of Ecuador. [1931.]

Housing.

- *No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
- No. 263. Housing by employers in the United States. [1920.]
- No. 295. Building operations in representative cities, 1920.
- No. 545. Building permits in the principal cities of the United States in [1921 to] 1930.

Industrial accidents and hygiene.

- *No. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories. [1912.]
- No. 120. Hygiene of painters' trade. [1913.]
- *No. 127. Danger to workers from dusts and fumes, and methods of protection [1913.]
- *No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
- *No. 157. Industrial accident statistics. [1915.]
- *No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
- *No. 179. Industrial poisons used in the rubber industry. [1915.]
- No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
- *No. 201. Report of the committee on statistics and compensation insurance costs of the International Association of Industrial Accident Boards and Commissions. [1916.]
- No. 209. Hygiene of the printing trades. [1917.]
- *No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
- No. 221. Hours, fatigue, and health in British munition factories. [1917.]
- No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
- *No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
- *No. 234. The safety movement in the iron and steel industry, 1907 to 1917.
- *No. 236. Effects of the air hammer on the hands of stonecutters. [1918.]
- *No. 249. Industrial health and efficiency. Final report of British Health of Munitions Workers Committee. [1919.]
- *No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
- No. 256. Accidents and accident prevention in machine building. [1919.]
- No. 267. Anthrax as an occupational disease. [1920.]
- No. 276. Standardization of industrial accident statistics. [1920.]
- *No. 280. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
- *No. 291. Carbon monoxide poisoning. [1921.]
- No. 293. The problem of dust phthisis in the granite-stone industry. [1922.]
- No. 298. Causes and prevention of accidents in the iron and steel industry, 1910-1919.
- No. 306. Occupation hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. [1922.]
- No. 392. Survey of hygienic conditions in the printing trades. [1925.]
- No. 405. Phosphorus necrosis in the manufacture of fireworks and in the preparation of phosphorus. [1926.]
- No. 427. Health survey of the printing trades, 1922 to 1925.
- No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14-16, 1926.
- No. 460. A new test for industrial lead poisoning. [1928.]
- No. 466. Settlement for accidents to American seamen. [1928.]
- No. 488. Deaths from lead poisoning, 1925-1927.
- No. 490. Statistics of industrial accidents in the United States to the end of 1927.
- No. 507. Causes of death, by occupation. [1930.]

Industrial relations and labor conditions.

- No. 237. Industrial unrest in Great Britain. [1917.]
- *No. 340. Chinese migrations, with special reference to labor conditions. [1923.]
- No. 349. Industrial relations in the West Coast lumber industry. [1923.]
- *No. 361. Labor relations in the Fairmont (W. Va.) bituminous-coal field. [1924.]
- No. 380. Postwar labor conditions in Germany. [1925.]
- No. 383. Works council movement in Germany. [1925.]
- No. 384. Labor conditions in the shoe industry in Massachusetts, 1920-1924.
- No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]
- No. 534. Labor conditions in the Territory of Hawaii, 1929-30.

Labor laws of the United States (including decisions of courts relating to labor.)

- No. 211. Labor laws and their administration in the Pacific States. [1917.]
- No. 229. Wage payment legislation in the United States. [1917.]
- No. 285. Minimum wage laws of the United States: Construction and operation. [1921.]
- No. 321. Labor laws that have been declared unconstitutional. [1922.]
- No. 343. Laws providing for bureaus of labor statistics, etc. [1923.]
- No. 370. Labor laws of the United States, with decisions of courts relating thereto. [1925.]
- No. 408. Laws relating to payment of wages. [1926.]
- No. 548. Decisions of courts and opinions affecting labor, 1929-30.
- No. 552. Labor legislation, 1930.

Proceedings of annual conventions of the Association of Governmental Officials in Industry of the United States and Canada. (Name changed in 1928 from Association of Governmental Labor Officials of the United States and Canada.)

- *No. 266. Seventh, Seattle, Wash., July 12-15, 1920.
- No. 307. Eighth, New Orleans, La., May 2-6, 1921.
- *No. 323. Ninth, Harrisburg, Pa., May 22-26, 1922.
- *No. 352. Tenth, Richmond, Va., May 1-4, 1923.
- *No. 389. Eleventh, Chicago, Ill., May 19-23, 1924.
- *No. 411. Twelfth, Salt Lake City, Utah, August 13-15, 1925.
- *No. 429. Thirteenth, Columbus, Ohio, June 7-10, 1926.
- *No. 455. Fourteenth, Paterson, N. J., May 31 to June 3, 1927.
- *No. 480. Fifteenth, New Orleans, La., May 21-24, 1928.
- No. 508. Sixteenth, Toronto, Canada, June 4-7, 1929.
- No. 530. Seventeenth, Louisville, Ky., May 20-23, 1930.
- No. 563. Eighteenth, Boston, Mass., May 18-22, 1931.

Proceedings of annual meetings of the International Association of Industrial Accident Boards and Commissions.

- No. 210. Third, Columbus, Ohio, April 25-28, 1916.
- No. 248. Fourth, Boston, Mass., August 21-25, 1917.
- No. 264. Fifth, Madison, Wis., September 24-27, 1918.
- *No. 273. Sixth, Toronto, Canada, September 23-26, 1919.
- No. 281. Seventh, San Francisco, Calif., September 20-24, 1920.
- No. 304. Eighth, Chicago, Ill., September 19-23, 1921.
- No. 333. Ninth, Baltimore, Md., October 9-13, 1922.
- *No. 359. Tenth, St. Paul, Minn., September 24-26, 1923.
- No. 385. Eleventh, Halifax, Nova Scotia, August 26-28, 1924.
- No. 395. Index to proceedings, 1914-1924.
- No. 406. Twelfth, Salt Lake City, Utah, August 17-20, 1925.
- No. 432. Thirteenth, Hartford, Conn., September 14-17, 1926.
- *No. 456. Fourteenth, Atlanta, Ga., September 27-29, 1927.
- No. 485. Fifteenth, Paterson, N. J., September 11-24, 1928.
- No. 511. Sixteenth, Buffalo, N. Y., October 8-11, 1929.
- No. 536. Seventeenth, Wilmington, Del., September 22-26, 1930.
- No. 564. Eighteenth, Richmond, Va., October 5-8, 1931.

Proceedings of annual meetings of the International Association of Public Employment Services.

- No. 192. First, Chicago, December 19 and 20, 1913; second, Indianapolis, September 24 and 25, 1914; third, Detroit, July 1 and 2, 1915.
- *No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
- No. 311. Ninth, Buffalo, N. Y., September 7-9, 1921.
- No. 337. Tenth, Washington, D. C., September 11-13, 1922.
- No. 355. Eleventh, Toronto, Canada, September 4-7, 1923.
- No. 400. Twelfth, Chicago, Ill., May 19-23, 1924.
- No. 414. Thirteenth, Rochester, N. Y., September 15-17, 1925.
- No. 478. Fifteenth, Detroit, Mich., October 25-28, 1927.
- No. 501. Sixteenth, Cleveland, Ohio, September 18-21, 1928.
- No. 538. Seventeenth, Philadelphia, September 24-27, 1929, and eighteenth, Toronto, Canada, September 9-12, 1930.

Productivity of labor.

- No. 356. Productivity costs in the common-brick industry. [1924.]
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
- No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry. [1926.]
- *No. 412. Wages, hours, and productivity in the pottery industry, 1925.
- No. 441. Productivity of labor in the glass industry. [1927.]
- No. 474. Productivity of labor in merchant blast furnaces. [1928.]
- No. 475. Productivity of labor in newspaper printing. [1929.]
- No. 550. Cargo handling and longshore labor conditions. [1932.]

Retail prices and cost of living.

- *No. 121. Sugar prices, from refiner to consumer. [1913.]
- *No. 130. Wheat and flour prices, from farmer to consumer. [1913.]
- *No. 164. Butter prices, from producer to consumer. [1914.]
- No. 170. Foreign food prices as affected by the war. [1915.]
- No. 357. Cost of living in the United States. [1924.]
- No. 369. The use of cost-of-living figures in wage adjustments. [1925.]
- No. 495. Retail prices, 1890 to 1928.

Safety codes.

- No. 336. Safety code for the protection of industrial workers in foundries.
- No. 350. Rules governing the approval of headlighting devices for motor vehicles.
- *No. 351. Safety code for the construction, care, and use of ladders.
- No. 375. Safety code for laundry machinery and operations.
- *No. 382. Code of lighting school buildings.
- No. 410. Safety code for paper and pulp mills.
- *No. 430. Safety code for power presses and foot and hand presses.
- No. 447. Safety code for rubber mills and calenders.
- No. 451. Safety code for forging and hot-metal stamping.
- No. 463. Safety code for mechanical power-transmission apparatus—first revision.
- No. 509. Textile safety code.
- No. 512. Code for identification of gas-mask canisters.
- No. 519. Safety code for woodworking plants, as revised, 1930.
- No. 527. Safety code for the use, care, and protection of abrasive wheels, as revised, 1930.
- No. 556. Code of lighting: Factories, mills, and other work places. (Revision of 1930.)
- No. 562. Safety codes for the prevention of dust explosions.

Vocational and workers' education.

- *No. 159. Short-unit courses for wage earners, and a factory school experiment. [1915.]
- *No. 162. Vocational education survey of Richmond, Va. [1915.]
- *No. 199. Vocational education survey of Minneapolis, Minn. [1917.]
- No. 271. Adult working-class education in Great Britain and the United States. [1920.]
- No. 459. Apprenticeship in building construction. [1928.]

Wages and hours of labor.

- *No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City. [1914.]
- *No. 147. Wages and regularity of employment in the cloak, suit, and skirt industry. [1914.]
- No. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- No. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- *No. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- *No. 204. Street railway employment in the United States. [1917.]
- No. 218. Wages and hours of labor in the iron and steel industry, 1907 to 1915: With a glossary of occupations.
- *No. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- No. 265. Industrial survey in selected industries in the United States, 1919.
- No. 297. Wages and hours of labor in the petroleum industry, 1920.
- No. 356. Productivity costs in the common-brick industry. [1924.]
- No. 358. Wages and hours of labor in the automobile tire industry, 1923.
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
- No. 365. Wages and hours of labor in the paper and pulp industry, 1923.
- No. 394. Wages and hours of labor in metalliferous mines, 1924.
- No. 407. Labor cost of production and wages and hours of labor in the paper boxboard industry. [1926.]
- *No. 412. Wages, hours, and productivity in the pottery industry, 1925.
- No. 416. Hours and earnings in anthracite and bituminous coal mining, 1922 and 1924.
- No. 484. Wages and hours of labor of common street laborers, 1928.
- No. 499. History of wages in the United States from colonial times to 1928.
- No. 502. Wages and hours of labor in the motor-vehicle industry, 1928.
- No. 504. Wages and hours of labor in the hosiery and underwear industries, 1907 to 1928.
- No. 513. Wages and hours of labor in the iron and steel industry, 1929.
- No. 514. Pennsylvania Railroad wage data. From report of Joint Fact Finding Committee in wage negotiations in 1927.
- No. 516. Hours and earnings in bituminous coal mining, 1929.
- No. 522. Wages and hours of labor in foundries and machine shops, 1929.
- No. 523. Hours and earnings in the manufacture of airplanes and aircraft engines, 1929.
- No. 525. Wages and hours of labor in the Portland cement industry, 1929.
- No. 526. Wages and hours of labor in the furniture industry, 1910 to 1929.
- No. 532. Wages and hours of labor in the cigarette manufacturing industry, 1930.
- No. 533. Wages and hours of labor in woolen and worsted goods manufacturing, 1910 to 1930.
- No. 534. Labor conditions in the Territory of Hawaii, 1929-30.
- No. 535. Wages and hours of labor in the slaughtering and meat-packing industry, 1929.
- No. 537. Wages and hours of labor in the dyeing and finishing of textiles, 1930.
- No. 539. Wages and hours of labor in cotton-goods manufacturing, 1910 to 1930.
- No. 546. Wages and hours in rayon and other synthetic textile manufacturing, 1930.
- No. 547. Wages and hours of labor in the cane-sugar refining industry, 1930.
- No. 551. Wages and hours of labor in the boot and shoe industry, 1910 to 1930.
- No. 557. Wages and hours of labor in the men's clothing industry, 1911 to 1930.
- No. 560. Wages and hours of labor in the lumber industry in the United States, 1930.
- No. 566. Union scales of wages and hours of labor, May 15, 1931. (In press.)

Welfare work.

- *No. 123. Employers' welfare work. [1913.]
- *No. 222. Welfare work in British munition factories. [1917.]
- *No. 250. Welfare work for employees in industrial establishments in the United States. [1919.]
- No. 458. Health and recreation activities in industrial establishments, 1926.

Wholesale prices.

- *No. 284. Index numbers of wholesale prices in the United States and foreign countries. [1921.]
- No. 453. Revised index numbers of wholesale prices, 1923 to July, 1927.
- No. 543. Wholesale prices, 1930.

Women and children in industry.

- *No. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. [1913.]
- *No. 117. Prohibition of night work of young persons. [1913.]
- *No. 118. Ten-hour maximum working-day for women and young persons. [1913.]
- No. 119. Working hours of women in the pea canneries of Wisconsin. [1913.]
- *No. 122. Employment of women in power laundries in Milwaukee. [1913.]
- *No. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]
- *No. 167. Minimum-wage legislation in the United States and foreign countries. [1915.]
- *No. 175. Summary of the report on condition of woman and child wage earners in the United States. [1915.]
- *No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
- *No. 180. The boot and shoe industry in Massachusetts as a vocation for women. [1915.]
- *No. 182. Unemployment among women in department and other retail stores of Boston, Mass. [1916.]
- No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
- No. 215. Industrial experience of trade-school girls in Massachusetts. [1917.]
- *No. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. [1917.]
- *No. 223. Employment of women and juveniles in Great Britain during the war. [1917.]
- No. 253. Women in the lead industries. [1919.]
- No. 467. Minimum wage legislation in various countries. [1928.]
- No. 558. Labor conditions of women and children in Japan. [1931.]

Workmen's insurance and compensation (including laws relating thereto).

- *No. 101. Care of tuberculous wage earners in Germany. [1912.]
- *No. 102. British national insurance act, 1911.
- *No. 103. Sickness and accident insurance law in Switzerland. [1912.]
- No. 107. Law relating to insurance of salaried employees in Germany. [1913.]
- *No. 155. Compensation for accidents to employees of the United States. [1914.]
- *No. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions, Washington, D. C., December 5-9, 1916.
- *No. 243. Workmen's compensation legislation in the United States and foreign countries, 1917 and 1918.
- No. 301. Comparison of workmen's compensation insurance and administration. [1922.]
- No. 312. National health insurance in Great Britain, 1911 to 1921.
- No. 379. Comparison of workmen's compensation laws of the United States as of January 1, 1925.
- No. 477. Public-service retirement systems, United States and Europe. [1929.]
- No. 496. Workmen's compensation legislation of the United States and Canada as of January, 1929. (With text of legislation enacted in 1927 and 1928.)
- No. 529. Workmen's compensation legislation of the Latin American countries. [1930.]

Miscellaneous series.

- *No. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
- No. 208. Profit sharing in the United States. [1916.]
- No. 242. Food situation in central Europe, 1917.
- No. 254. International labor legislation and the society of nations. [1919.]
- No. 268. Historical survey of international action affecting labor. [1920.]
- No. 282. Mutual relief associations among Government employees in Washington, D. C. [1921.]
- No. 319. The Bureau of Labor Statistics: Its history, activities, and organization. [1922.]
- No. 326. Methods of procuring and computing statistical information of the Bureau of Labor Statistics. [1923.]
- No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]
- No. 346. Humanity in government. [1923.]
- No. 372. Convict labor in 1923.
- No. 386. Cost of American almshouses. [1925.]
- No. 398. Growth of legal aid work in the United States. [1926.]
- No. 401. Family allowances in foreign countries. [1926.]
- No. 461. Labor organizations in Chile. [1928.]
- No. 462. Park recreation areas in the United States. [1928.]
- No. 465. Beneficial activities of American trade-unions. [1928.]
- No. 479. Activities and functions of a State department of labor. [1928.]
- No. 483. Conditions in the shoe industry in Haverhill, Mass., 1928.
- No. 489. Care of aged persons in the United States. [1929.]
- No. 505. Directory of home for the aged in the United States. [1929.]
- No. 506. Handbook of American trade-unions: 1929 edition.
- No. 518. Personnel research agencies: 1930 edition.
- No. 541. Handbook of labor statistics: 1931 edition.
- No. 558. Labor conditions of women and children in Japan. [1931.]
- No. 561. Public old-age pensions and insurance in the United States and foreign countries. [1932.]
- No. 565. Park recreation areas in the United States, 1930. (In press.)

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